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PUMILINE OINTMENT	1/1½ and 2/9 per pot.....	11/ and 27/ per dozen.
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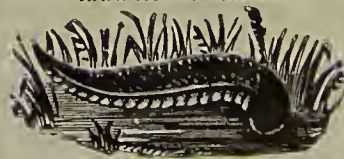
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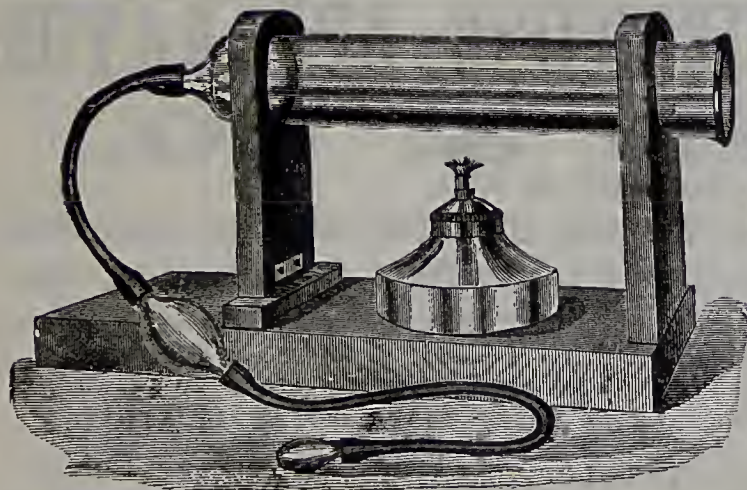
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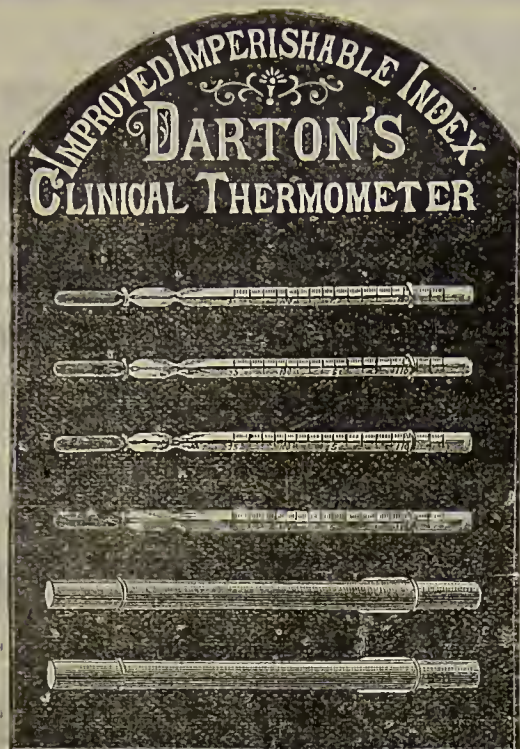
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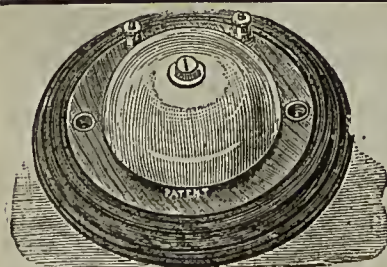
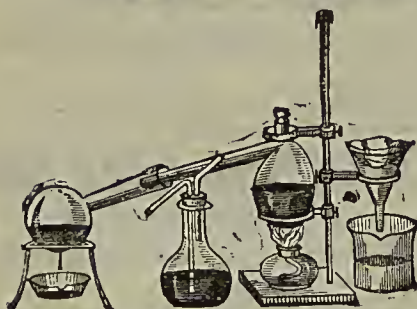
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Gaiffe's bisulphate mercuric battery, complete, cool as new, 12s. Vause, 137 Sloane Street, London.

The stock and gold-labelled bottles of a chemist's shop. 103 High Street, Wandsworth, S.W.

Several gross excellent porous plasters; 1s. 4d. dozen; sample sent post free, 3d. Price, Chemist, Walthamstow.

Microscopic slides; educational, medical, scientific, interesting, from 2s. 6d. dozen; lists free. B., 233 Maidway, W.

Pill-machine, Maw's, 5 gr., quite new; will exchange for "Enterprise" tincture-press. Greaves, Chemist, Sharrow, Sheffield.

8 pints triple extract Hly of valley; 4 pints ylang-ylang, No. 30, 7s. pint; samples 4 stamps. Chemist, 7 Victoria Mount, Leeds.

40 50's very choice cigars, 5s. 6d. box, cost 7s.; 20 100's Princesses, 7s. 6d. box, cost 11s.; 5 100's 1885 Havannas, 24s., cost 32s.; re Louis Kahn. John Slater, Beeston Hill, Leeds.

Chemical balance, sensitive to $\frac{1}{1000}$ gramme platinum dish, holding 200 c.c., and other apparatus; nearly new; offers? Wanted 1/1 camera, furnisher, safety bicycle, &c., Inglis, Chemist, Delph.

What offers for *Pharmaceutical Journal*, 1839, new? For sale, brass petroleum counter-pump, in good condition; will post *Pharmaceutical Journal*, 1890, for *Chemist and Druggist*, 1890, posted Monday nights. Hestill, Chemist, Coseley.

Glass bottles, job lines.—About 50 gross 3-oz. pale green bottles for corks, suitable for pomade, vasoline, or furniture cream, 4s. per gross; 3 gross ½ pint (reputed) green glass syrups, 7s.; 2 gross pint ditto, 15s.; 3 gross 1 pint white glass syrups, 20s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, Bottle Works, 331 Kingsland Road, London.

Microscopic objects, gorgeous polarising, brilliant opaque and entertaining slides, 3 by 1, suitable for evening exhibition, 5s. dozen list free; 4 dozen slides sent, carefully packed and postage paid, for 21s., to Australian Colonies, Belgium, Canada, France, Germany, India, New Zealand, South Africa; microscope accessories wanted in exchange. Henry Ehlig, 344 Caledonian Road, London.

WANTED.

Job lots of chemist's drugs, &c., cheap, for cash. 249/6.

Pharmaceutical Journals, 3rd series, vols. 1, 7 to 11. Purse, Chemist, Sunderland.

A dozen 30 or 40 oz. capped oil bottles; 3 gr. pill machine. Savage, Nottingham.

British Pharmacopœia, standard works on "Skin Diseases," latest editions. Goodacre, Horsforth.

Chemist's lamp, in fair condition; state description, price, &c., to Walker, 91 Harrow Road, London, W.

Bontley's "Botany," Wills' "Materia Medica"; lowest price (latest editions) to Sydney, 17 St. Michael's Street, Folkestone, Kent.

Two copies of the "Art of Pharmacy," published by *Chemist and Druggist*; state lowest price to Kirkland, Cope & Co., 4 Northumberland Street, Strand, London.

Upright case to go before desk, size about 36 in. high by 24 in. wide; also sloping counter case 36 in. by 18 in.; must be cheap. 226 Rochdale Road, Oldham.

A few copies each of *The Chemist and Druggist* for December 7, 14, 21, and 28, 1889. 1s. will be paid for complete sets sent to the Publisher, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London E.C.

THE PURE MALT CO.'S EXTRACT of MALT
A Nutritive and Digestive Food.

THE PURE MALT CO.'S EXTRACT of MALT
Prepared in vacuo from Barley, and Peptonized.

THE PURE MALT CO.'S EXTRACT of MALT
A Powerful Aid to Digestion.



Retail—6d. Wholesale— 4/- per doz.	1/6 12/- per doz.	2/10 22/- per doz.	10d. 7/- per doz.	6d. 4/- per doz.
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A SAMPLE BOTTLE OF EACH SIZE WILL BE SENT, CARRIAGE PAID, ON RECEIPT OF TRADE CARD AND 4/3 P.O.O. OR STAMPS.

BEING prepared in vacuo, by an approved method, it contains in a highly concentrated form the nutritive and digestive properties of the best Malted Barley, CARBO-HYDRATES, PHOSPHATES, and ALBUMINOIDS. Extract of Malt is pronounced to be one of the best digestive agents in all cases of faulty assimilation of the elements of nutrition. It derives its efficacy from a combination of all those valuable materials contained in the choicest malted barley. These powerful substances, resolved into dextrine and soluble malt sugar, do not ferment or produce acidity in the stomach, but are easily assimilated into the system. It also contains those natural saline compounds, PHOSPHATES of SODA, POTASH, LIME, &c., so necessary to the well-being of the system, in giving tone to blood, nerve, and brain; altogether nourishing and building up the constant waste of tissue and energy.

Extract of Malt is undoubtedly useful in Consumption and other wasting diseases, and is extensively used in a variety of ways. Mixed with Porridge, Gruel, Arrowroot, Sago, and all farinaceous foods, it renders them easy of digestion. Dissolved in Milk it is of great service, being pleasant to the taste and easily retained, not only when given to Infants, but as a demulcent in Colds, Coughs, &c. Makes palatable that valuable restorative—COD LIVER OIL. Taken with the meals, in Coffee, Cocoa, or any beverage, it renders all the nutrient properties of food more easy of assimilation.

For Wholesale Terms in large quantities apply to

THE PURE MALT EXTRACT CO.
CAMBERWELL, LONDON, S.E.

City Office:—Mansion House Chambers, 20 Bucklersbury, London, E.C.

Sold by all Chemists, &c., in the principal Towns in the United Kingdom.

NATURAL ARSENIO-FERRIC MINERAL WATERS OF

LEVICO

SOUTH TYROL.

DOSE—One Tablespoonful mixed with Seltzer or Red Wine three times a day.

Price per dozen Bottles, 12/ net; price per 100 Bottles, 88/ net. *Delivered free on rail London.*

They are particularly valuable in the treatment of Anæmia, Chlorosis, Syphilis, Skin Diseases, Menstrual Disorders, & scrofulous Diathesis, and most especially Nervous Affections of all kinds.

To be had of all Chemists and Druggists.

Agency, 24 Coleman St., London, E.C.

MILLAR'S BRITISH WINES.

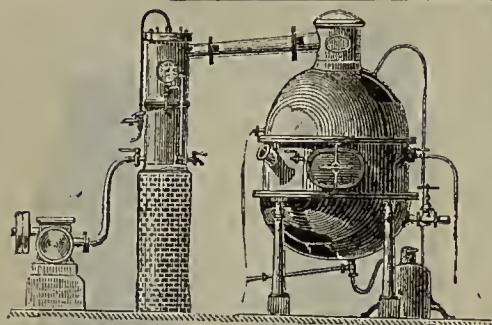
ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.

A. MILLAR & CO., Thomas Street, DUBLIN.

Sole Agents for London and District—H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

APPARATUS for DISTILLING & CONCENTRATING in VACUUM

EGROT & GENEVOIX'S SYSTEM, PATENT.



Egrot & Genevoix Apparatus.

STILLS & PANS FOR CHEMISTS,
DRUGGISTS, &c.

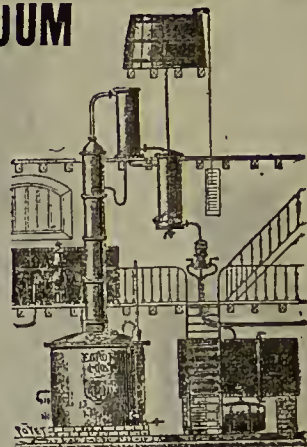
RECTIFYING APPARATUS

Egrot's System, Patent,

FOR BENZOLE, ETC.

EGROT, Chevalier of the Legion of Honour,
MANUFACTURING ENGINEER,
19, 21 & 23 RUE MATHIS, PARIS.
FIRM FOUNDED 1780.PARIS EXHIBITION, 1839—Beyond Competition as
Member of Jury.

PRICE LIST FREE.



Rectifying Apparatus.

BUY THE**"LONDON MADE" SYPHON**

AND SUPPORT BRITISH INDUSTRY.

It is the Cheapest, Strongest and Handsomest, and Best in the World.

PRICE 1/6 EACH.

Send for Samples and compare. Coloured Syphons extra.

The above are without Saucer Base, but they can be had with the Drip Saucer, 1/8 each.

Nickel plating from 2½d. each, Silver plating from 4½d. each. Marking on Metal Tops free, but Die charged for at cost price. Marking on Glass by acid process, from 1d. each; steel plate for printing from charged extra, according to design; no charge, however, will be made for this plate for orders of 1,000 and over.



No charge for packing if ordered in our 1-doz. Boxes, with hinged lids, price 2/9 each.

BARNETT & FOSTER,

NIAGARA WORKS,

26^T EAGLE WHARF ROAD, LONDON, N.

146, MINORIES, LONDON E.C.
New York
Sydney
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SODA WATER MACHINERY

AND ALL ACCESSORIES
FOR THE TRADE

BRATBY & HINCHLIFFE LIM.

HEAD OFFICE
SANDFORD ST. ANCOATS, MANCHESTER

BOXES BOTTLES, MACHINERY,
ESSENCES
Catalogues, Circulars, Testimonials
Post Free

SYPHONS & SELTZOGENES

GREAT REDUCTION IN PRICE.

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.

WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED



SODA-WATER MACHINERY.

MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them **THREE GOLD MEDALS**, which were awarded as follows:—

- 1st—SODA-WATER MACHINERY (Highest Award possible).
- 1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible).
- 1st—PATENT AND ORDINARY BOTTLES (Highest Award possible).

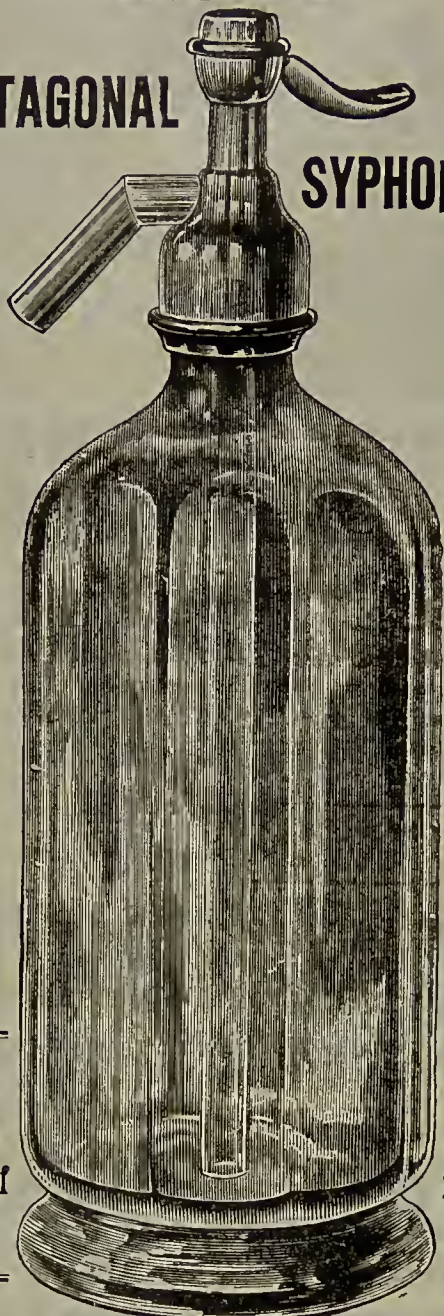
WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

BRATBY & HINCHLIFFE, LIM.

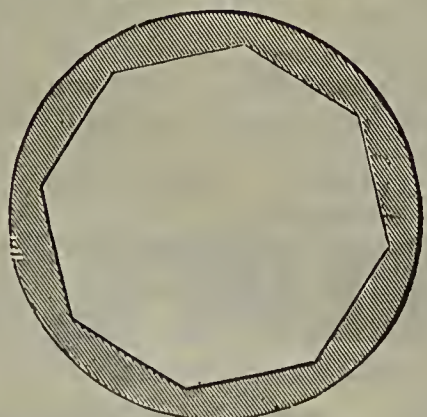
Aerated Water Engineers and Glass Bottle Manufacturers,

SANDFORD ST., ANCOATS, MANCHESTER,

And at 146 MINORIES, LONDON, E.C.

JAMES VIDIE ET FILS,Pantin Glass Works,
PATENTEES OF THE**OCTAGONAL****SYPHON.**

SECTIONAL VIEW.

Sample
sent on
receipt of
2/-Sample
sent on
receipt of
2/-

SOLE AGENT:

C. MELIN, 37 CRUTCHED FRIARS, LONDON, E.C.**A WONDERFUL SUCCESS!!****NON-INTOXICATING BEER**

Made from MASON'S Original

EXTRACT of HERBS

(REGISTERED.)

Composed of Yarrow, Dandelion, Comfrey, & Horehound,
ENLARGEMENT OF SIZE.A Sixpenny Bottle makes EIGHT GALLONS of
HERB or BOTANIC BEER

A NON-INTOXICATING BEVERAGE

Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most
perfect substitute for Alcoholic Drinks ever discovered, for either
Summer or Winter.**BEWARE** of mean and fraudulent imitations.**BEWARE** of others copying our title.**MASON'S** is the original and only genuine.**MASON'S** is a Special Compound entirely from Herbs.

NO OTHER EXTRACT MAKES BEER LIKE IT.

Sold in Bottles at 6d., 1/, & 2/ each, with directions.

MASON'S WINE ESSENCES

Make Temperance Wines in a few minutes.

Ginger, Orange, Lemon, Raspberry, Black Currant, &c.

These are having a very large sale now, and are extensively advertised.

Sold in Bottles at 6d., 1s., and 2s. each.

Quotations on application.

SOLE INVENTORS &
MANUFACTURERS:**NEWBALL & MASON,**

Manufacturing Chemists and Botanic Druggists. NOTTINGHAM

ANDREWS' FILTERS

No. 1, 12/6.

FOR THICK LIQUIDS.

No. 2, 18/6.

Used Extensively by Manu-
facturing Chemists and
Druggists.Sent Carriage Paid on receipt
of Postal Order or Cheque for
12/6 or 18/6.FILTERING CLOTHS OF EVERY
DESCRIPTION.**ANDREWS'
FILTER CLOTH CO.,**330 High Holborn,
LONDON, W.C.**FOR FILTERS**Perfect in Mechanical and
Chemical Action, Reliable
Durable, Easily Cleaned.**LIPSCOMBE, OXFORD STREET, LONDON, W.**

Makers to the Royal Family,

Original & sole inventor of the celebrated improved Filter

The ONLY GENUINE are made SOLELY by the Sons of the late
Mr. Lipscombe. As there are watches and watches, so there are Filters
and Filters, and the Trade are Cautioned against feeble Imitations of
Lipscombe's Filters. To avoid grave disappointment, address—**LIPSCOMBE, OXFORD STREET, W.**This Caution is necessary as we have no connection with any
other Firm TRADING under the same name—Caveat Empior.

**LIFE'S
RESTORER.**

**—
FINEST
CONSOMMÉ.**

**HIGHEST POSSIBLE
HONOURS.**

PARIS EXHIBITION, 1889;
FOOD
AND COOKERY EXHIBITION,
LONDON, 1889;
&c., &c., &c., &c., &c.



LIQUID EXTRACT OF BEST FRESH BEEF.

A happy thought does not alone constitute a perfect invention; simplicity is needed to make it perfect.

"MAGGI" possesses this quality in a degree that renders it as indispensable in the kitchen as salt and pepper.

"MAGGI" is simply liquid EXTRACT OF BEEF, a teaspoonful of which, added to a cup of hot or cold water, makes at once a perfect BEEF TEA, which anyone, sick or well, will relish.

Two tablespoonfuls to a quart of water (adding Vegetables, &c.) will make a better Soup or Potage than hours spent over the fire.

The improvement in the quality of Gravies, Ragoûts, Stews, Hashes, Roasts, &c., by the addition of a few drops of "MAGGI," is amazing.

Unlike all other Extracts of Meat, "MAGGI" is most delicious, does not need the addition of salt and pepper, can be used by the most inexperienced, produces as good a Consommé or perfect Clear Soup as any first-class cook can prepare by the most elaborate and expensive means, and keeps good in any climate.

Soup Stock is now rendered unnecessary, as "MAGGI" is better, cheaper, and more nutritious for the sick, convalescent, and healthy.

In 2-oz., 1-lb., & 2-lb. Bottles, of all Grocers and Druggists throughout the world.

Wholesale Agents—E. Lazenby & Son; Samuel Hanson, Son & Barter; W. & D. Harvest; Crosse & Blackwell.



REGISTERED.

TOWER TEA
OBTAINED THE
HIGHEST AWARD

FOR TEA AT THE

PARIS EXHIBITION.



PRIZE MEDAL, PARIS, 1883.

To avoid imposition see that the trade marks (a Tower, with the word "Strength" across it, and "Tower Tea") are on every package, without which none is genuine.

WHERE VACANCIES EXIST AGENTS ARE
APPOINTED BY



PRIZE MEDAL, PARIS, 1889.

THE GREAT TOWER STREET TEA CO., LIMITED
5 JEWRY STREET, LONDON, E.C.



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt,
and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).

December 15, 1888.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application. [2]

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2 Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order.
B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

WILKINSON'S COMPRESSED

They are introduced to the public to enable them to make their own HOP BITTERS, YEAST, HOME BREWING, and numerous other purposes. Full particulars given in each packet.

Samples and Prices sent on application to

A. WILKINSON & SONS, 37 CANNING PLACE, LIVERPOOL.

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Dealers in every description of Isinglass.

ENGLISH HOPS.

Best Hops compressed into small parcels of one pound and half pound, and sent out in cases containing 30 lbs. each. These hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

PEPTONATE OF IRON

SOLE MAKERS

DENAYER'S PEPTONES & CO. LTD.

PEPTONE OF MEAT

DENAYER'S

LIQUID PEPTONES STERILIZED

Free from microbes!
Keep good for ever in all climates.
118 BISHOPSGATE STREET WITHIN, LONDON, E.C.

DENAAYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.

DENAAYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition. Is retained when the stomach rejects all other food. Pleasant to taste.

Of all Chemists and Wholesale Houses.

SOLD EVERYWHERE.

Makes the best
**GRAVIES, SOUPS, &
SAUCES.**

IMPROVES
**STEWES and
HASHES.**

ASK YOUR GROCER FOR

GRAVINA

EDWARDS' GRAVY POWDER.

REGISTERED

TRADE MARK.

PUT UP
IN
Self-opening Canisters

1-lb., 1/10; ½-lb., 1/-; ¼-lb., 6d.

Sample Free on receipt of Business Card.

**NOURISHING.
ECONOMICAL.**

SOLE MANUFACTURERS—

F. KING & CO., LTD.

3 to 6 Camomile Street, LONDON;
26 WARING STREET, BELFAST.

QUARTER & HALF POUND TINS OF "ROYAL CHARTER" AND "UPPER CRUST" TOBACCO

Trade Price Lists to Licensed Dealers on application. See Diary, page 104.

SOLE MANUFACTURERS—

M. & R. PEACOCK, Kingsland Road, London, N.E.

A sample $\frac{1}{4}$ -lb. tin of both the above brands per Parcel Post, on receipt of Postal Order for 3s. 4d.



PASCALL'S GOLDEN MALTEX

PATENTED.

Contains 25% of Allen & Hanburys' Extract of Malt.
A NOVEL CONFECTION. — MOST SALEABLE.
Delicious Flavour. Brilliant and Attractive Appearance.
SELLS AT SIGHT.

Vide Dr. Tanner's Report, and The Chemist and Druggist, April 20th.

1/ Bottles, 9/ per doz.; 1-lb. Bottles, 21/ per doz.; and in 4-lb. Jars, 1/6 per lb.

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER,

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E

"MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and $\frac{1}{4}$, $\frac{1}{2}$, 1 lb. Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS,

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialities.

T. & F. J. TAYLOR'S



AERATED WATERS.

Newport Pagnet.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS,
LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.O.S.

AVOID RISK OF CHILLS IN THE BATH BY USING RANKIN'S CORK BATH MATS.

MAKES THE BEST CARRIAGE MAT. OF ALL CHEMISTS AND DRUGGISTS.
A Real Comfort. Recommended by Medical Men.

CAUTION.—These Mats are distinguishable from all others in being made of Solid Cork Wood, 1 inch thick, and are unequalled for warmth and comfort.

Valuable show-cards supplied to Retailers with first order; and with all Mats an equal number of fine thin cards of Cork printed with illustrated advertisement. These cards are a great novelty, and their free distribution will be found to assist sales materially.

PRICES.

3/6, 5/6, and 7/6 each, free; extra sizes, 10/6, 12/6, and 15/6 each, super quality and finish.



WM. RANKIN & SONS, 10 CARLTON PLACE, GLASGOW.
Who'sale Chemists' Agents—S. M. W., SON & THOMPSON.

EIGHT PRIZE MEDALS AWARDED

GOODALL'S HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s. 2s. and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each

GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

GOODALL'S BRUNSWICK BLACK.

For Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles

GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

GOODALL'S PLATE POWDER.

For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and 2s.

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In ½- and 1-pint boxes, 3d. and 6d. each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS.

PATENT MEDICINES AND DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

TO ESSENCE MAKERS. ORANGE AND LEMON PEELS (DRIED and FRESH).

This Season's Peel is now ready, and we are prepared to supply Fresh Orange and Lemon Peels specially cut (free from pith), in small shreds about 1" x ½", in a condition most favourable for the manufacture of Essences and the Official Tinctures.

Samples will be sent free on application.

"EXCELSIOR" TABLE JELLIES

IN CARDBOARD BOXES,

Of ½-Pint, Pint, and Quart Size, packed in Wood Boxes free.

½-Pints, 1/9 per doz.; Pints, 3/3 per doz.; Quarts, 6/ per doz.



FLAVOURS:

Orange, Lemon, Calves' Feet, Vanilla, Raspberry, Noyeau, Cherry, Strawberry, Pineapple, and Black Currant.

CHAS. SOUTHWELL & CO.

DOCKHEAD, LONDON, S.E.

HUGO BROWN & CO.

41 Ormond Street, LIVERPOOL,

SOLE AGENTS IN EUROPE FOR LIEBIG'S

EXTRACT OF BEEF

MADE BY

MESSRS. A. SANTA MARIA & CO.

PAYSANDU.

Sold as imported in cases of two tins each, weighing together, about 112lbs.

CIGARS, ETC.

At the Lowest Wholesale Prices.

La Juana	10/6 per 100, Sold at 2d. each.
La Trafalgar	15/0 " " 3d. "
El Sol Habaners,	} 22/ per 100, Sold at 4d. each.
Havannah 1885 Crop	
&c, &c. TOBACCO, CIGARETTES, &c.	

Samples on receipt of 1s. 6d. in Stamps.

BEWLAY & CO., LTD.

Tobacco Manufacturers and Cigar Importers,
49 STRAND, and at 143 CHEAPSIDE, LONDON.
ESTABLISHED OVER 100 YEARS.



BOTTLE.



FIG. A.

INFLUENZA

CURED BY

MENTHOL.

Dr. T. LENNOX BROWN says:—"It kills the microbe of infection."

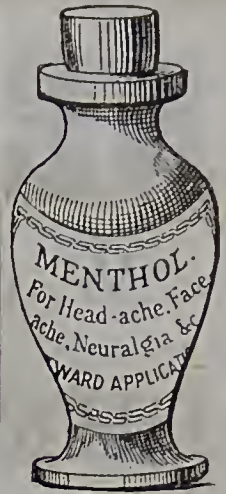
6/- per Gross PENNY PURE
MENTHOL CONES.

BOTTLE OR VASE SHAPES.

2d. Size, **12/-** per Gross.

(As Figs. A. or B., Stained and Varnished.) All on $\frac{1}{4}$ -Gross
Show Cards. Sample Free.

PETER TYRER,
70 LONG LANE, BOROUGH, LONDON, S.E.



VASE.



FIG. B.

BOVRIL

IN THE "LANCET" OF NOVEMBER 11, 1865
BARON LIEBIG SAYS:—

"Were it possible to furnish the market at a reasonable price with a preparation of meat, combining in itself the aluminous together with the extractive principles, such a preparation would have to be preferred to the Extractum Carnis, for it would contain all the nutritive constituents of meat." Again—"I have before stated that in preparing the Extract of Meat, the Aluminous principles remain in the residue, they are lost to nutrition, and this is certainly a great disadvantage."

"**BOVRIL**" contains the albumin and fibrine in the most perfect possible form, and to those who know the requirements of the human system and the constituents of food, it will be apparent that this albumen and fibrine is identical with what the body requires for recuperation, and that as a perfect form of concentrated nourishment it must supersede any animal aliment at present known.

"**BOVRIL**" has solved the problem of the great German Chemist.
"**BOVRIL**" is Baron Liebig's ideal realised.

OFFICES:—30 Farringdon Street, LONDON.

SANTHA.

A Digestive **EXTRACT OF TEA**, made
instantly in Cup or Teapot.

The injurious action of tea upon the digestion is due to the tannin it contains; and as this dissolves instantly in hot water, no method of infusion can keep it out. Santha is the only form of tea that has no action upon either food or membranes; and it is not bilious like cocoa and coffee. The *Lancet* of May 4th, 1889, says:—"The aroma and the caffeine are preserved, and the tannin is neutralised and rendered innocuous." The *London Medical Recorder* of Feb. 20th, 1889, says:—"Santha possesses the aromatic and stimulating qualities of the crude leaf, minus its astringency." The *Illustrated Medical News* of August 31, 1889, says:—"We can recommend it as the most digestible and palatable form of tea yet submitted to us." Santha is the only Tea suitable for Weak Digestions. Of Chemists, &c., 1s., 2s., 6d., and 6s.; or by post from works, 2d. extra.

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$\frac{1}{4}$ -lb. Jars..... "	7/3 "	21/9	$\frac{1}{2}$ -oz. Jars..... "	8/8 "	3/8

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Perken, Son and Rayment
Raphael, J., and Co.

POINTMENT BASES

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Chesebrough (Vaseline)
Grindley (Petroleum Jelly)

OPHTHALMIC

Pomies, Dr.

OTTO OF ROSE

Fuerst Bros.
Shipkoff and Co.
Treatt, R. C.

PEPSINE, &c.

Burroughs, Wellcome and Co.
Fletcher, Fletcher & Stevenson
Newbery (Liquorin)
Warner and Co. (Liquorin)
Zimmermann

PAPAIN PINKER

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

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Horn and Son

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Armbricht, Nelson and Co.
Atkinson and Barber (Infant Preserv)
Barclay and Sons (Limited)
Beecham (Pills)
Braggi and Co.
Crouch, F. B. (Wafers)
Da Silva and Co.
Edwards and Son
Evans, Leacher and Webb
Fennings' (Powders)
Goodall, Backhouse and Co.
Grosvenor, C.
Holloway (Pills and Oint.)
John's Liver Pills
Kemp, W. H.
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Mey, Roberts and Co.
Newbery and Sons.
Oil of Olive Co.
Powell, A. E. and Co. (Moon- and Litters)
Redmond's Stomach Wash
Roberts and Co. (Foreign)
Rosema Manufacturing Co.
Sequah (Limited)
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Swift's Specific Co.
Vogeler, The C. A. Co.
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Chiswick Soap Co.
Cook, B. & Co.
Coward and Co.
Dee Oil Co. (Limited)
Durrant, Geo.
Evans, Sons & Co. (Fossoline)
Ewen (Soaps)
Farina, J. M.
Foulkes, W. J.
Giraud Fils
Greenall, T. R., and Son
Johnson and Co.
Mann, O. A., and Co.
Maw, Son and Thompson
Mouilla Liquid Soap Co., Ltd.
Newbery and Sons' (Rodean's)
Osborne, Bauer & Cheeseman
Pears' Soap
Price's Patent Oandle Co.
Rosema Manufacturing Co.
Rouse & Co.
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Truefitt, H. P. (Limited)
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Violet
Vogt, G., and Co.
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Chassaing and Co.
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Howards and Sons
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Beecham, Thomas
Eade's Oint Pills
Evans, Sons and Co.
Holloways
McKesson and Robbins
Newbery and Sons
Penny Quinine
Richards, J. M.
Towle, E. T.
Warner, W. R. & Co. (Coated).
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Robertson, J., & Co. (Coating)
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Evans, Sons and Co.
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Mather, W.
Quilliam, J., and Co.
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Seabury and Johnson
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Young, H.

PODOPHYLLIN, &c.

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(Limited)
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Griffiths, T. M.

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Toogood, (E.C. Pots, regist.)

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Ford, Shapland and Co.
Silverlock, H.
Townsend, J.
Zuccato and Woolf.

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Stern, G. and G.

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Boehringer, C. F., and Sohne
Howards and Sons
Kuhn, B.
Rivers, Hicks (Penny Quinine)
Zimmermann and Co.

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Johnson and Jurgensen
Oldfield, Pattinson and Co.

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Hockin, Wilson and Co.
Schutze, F., and Co.

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Burroughs, Welloome and Co.

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Macfarlan and Co.
Smith, T. and H., and Co.

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and Pharmacy
City School of Chemistry and
Pharmacy (Lim.)
Liverpool School of Pharmacy
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Medical School
Manchester College
South London School of
Pharmacy, Lim.
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Westminster College

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Chilwick Soap Co.
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Fordham, W. B., and Sons
Pears' Soap
Stern, G. and G.

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Idris and Co.
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Evans, Sons and Co.
Hawke and Son
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Treble, G., and Son
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Jones and Co. (Methy.)
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Macnair, J. and D., and Co.
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Mestivier and Co.
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Simon, J.
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Sutton, O., and Co. (Block)
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TRUSSES

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Bailey, W. H., and Son
Haywood, J. H.
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Sutton, F., and Co.
Walker, Troke and Co.
Wyleys and Co.

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Newham and Pickard

VINOLIA

(Superfatted Medi-
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Blondeau and Co.

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Coward, G. F., and Co.
Davy, Humphrey, and Co.
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Evans and Sons (Limited)
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Farris and Co.

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Hewlett and Son
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Oldfield, Pattison and Co.
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Co. (Limited)
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Woolley, Jas., Sons and Co.
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BERDOE'S TRIPLE FRENCH PERFUMES



THESE PERFUMES have been known to the trade for many years past, and their steadily increasing sale is the best proof of the appreciation in which they are held. Notwithstanding that the prices of some brands of perfumes have been reduced, F. NEWBERRY & SONS find it both impossible and needless to offer any other advantages to buyers than—(1) the excellent quality of the Perfumes themselves, (2) their price. The object kept in view is not to produce goods which may be sold at a given price and leave a given margin of profit, but to produce such as shall equal or surpass a given standard of quality.

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PLAIN STOCK BOTTLES of 20 oz., 10 oz., and 5 oz.				£	s.	d.
Ess. Bouquet	per 20 oz.,	0	8 7
Frangipane			
Jasmin			
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New Mown Hay	per 10 oz.,	0	4 4
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			£	s.	d.
Violets
Wood Violet
White Rose, 20 oz.,	9s.	10d.; 10 oz.,	5s.	1d.;	
5 oz., 2s. 7d.					
Eau de Cologne
Lavender Water .. .. .	..	..	..	..	..
			per 20 oz.,		0 4 4
			" 10 "		0 2 3
			" 5 "		0 1 2

The above are the leading Essences, and to these the special attention of customers is asked. Those who desire greater variety will find in "Newberry's Catalogue" a more extended list.

Berdoo's Perfumes, in Handsome Show Bottles for the Counter, Rose Cut Stoppers, Vitriified Opal Shield Labels with Gold Border and Black Letters, from 11s. 6d. each.

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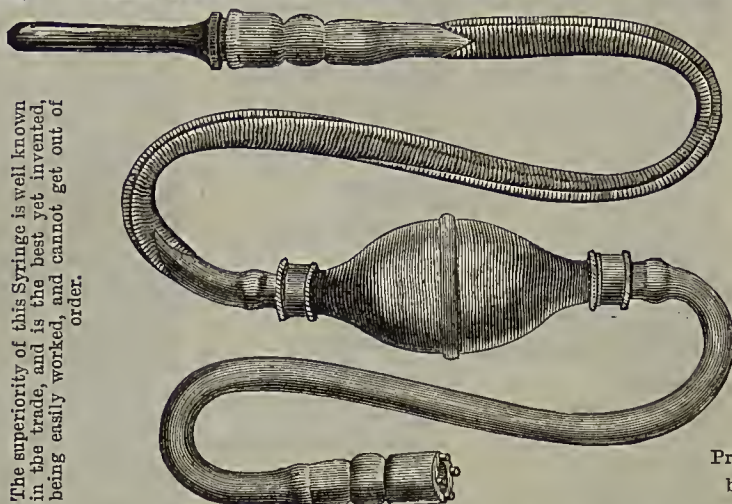
Manufacturers of all kinds of Indiarubber Goods for Surgical purposes, Enemas, Syringes, Teats and Tubing for Feeding Bottles, &c. Prices on application.

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The famous Continuous-flow Syringe.

The superiority of this Syringe is well known in the trade, and is the best yet invented, being easily worked, and cannot get out of order.



The famous Continuous-flow Syringe.

Prices and all particulars sent on application. To be had from all principal Chemists and Druggists.

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WINTER GOODS.

Before ordering Chest Protectors, &c., write for sample of

HAYWOOD'S PATENT VENTILATING,

The only Chest Protector made on scientific principles.

Manufactured from Pure Natural, Scarlet, and Medicated Pine Wool. Made also in Vests, Drawers, Combinations, Chest and Back Protectors, Bodices, Waistcoats, Sleeping Socks, Gout Gloves, &c.

Show Stand sent gratis with orders for not less than One Dozen.

Chest Protectors and other Appliances for winter made also in Chamois Skins, Knitted Wool, Fleecy, Felt, Medicated Pine, &c.

MAGNETIC BELTS,

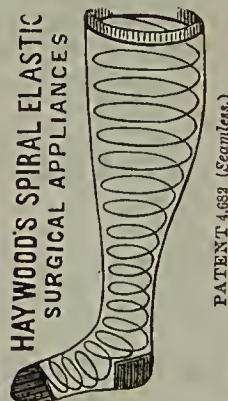
Chest & Back Protectors, & Socks.

CHILBLAIN SOCKS.

Fleecy Sleeping Socks and Knee Caps, Patent Pile Surgical Elastic Knee Caps, Socks, and Stokings.

PATENT SEAMLESS, PATENT PILE,

and other Elastic Surgical Stockings, &c., in Thread Silk, Cashmere, Scarlet, Pine, and Natural Wool.

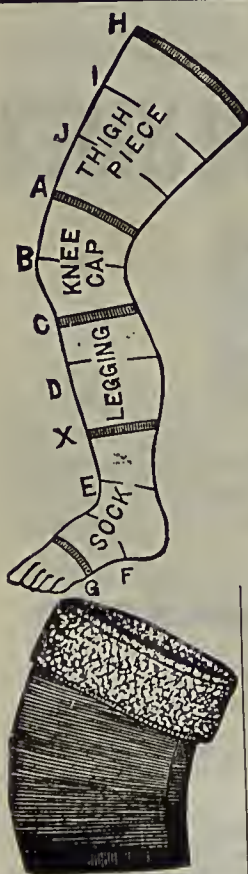


HAYWOOD'S SPIRAL ELASTIC SURGICAL APPLIANCES

PATENT 4,682 (Seamless.)



PATENT.



Patent Pile, Protected, 14,618. The Pile lying over the Indiarubber Cords, protecting them and forming a smooth soft surface to the limb.

Hot Water Bottles and Covers, Respirators, Inhalers, Bronchitis Kettles, Throat Sprays, Waterproof Coats, Cloaks and Driving Aprons, Footballs, Shin Guards, and Athletic Appliances, Belts, Chest Expanding Braces, Trusses, Suspensory and other Bandages, Druggists' Sundries, Invalid and Nursery Appliances, &c.

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BARCLAY & SONS, LIMITED

ESTABLISHED



OVER A CENTURY.

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TRADE MARK.

REGISTERED.

FOR THE TREATMENT AND CURE OF ALL

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Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

COUGHS AND COLDS, ASTHMA, BRONCHITIS,

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottle on the Label over the Cork, and on the Wrapper,

JOHN FRANCIS CHURCHILL, M.D. (Paris),

The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites

Price 4s. 6d. and 11s. per Bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

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Patent Medicine Vendors,

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And TOILET REQUISITES.

ILLUSTRATED PRICE LISTS SENT
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Sample Orders for Bronchitis Kettles, Chest Protectors, Hot Water Bottles, Respirators, &c. &c., will receive prompt attention, and doubtless ensure further orders.

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Agencies of all kinds undertaken upon the most favourable terms.

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KEARSLEY'S Widow Welch's FEMALE PILLS.

These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.

CAUTION!

The Proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley, of Fleet Street, whose Widow found it necessary to make an affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for Widow Welch's Female Pills has been prepared by them for 100 Years! Chemists are particularly requested to remark that, as a testimony of authenticity, each bill of directions contains an affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

Price 27s. per Dozen, subject to usual Discount. Special Quotations to Shippers and for large quantities on application to

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FACTS SPEAK FOR THEMSELVES!

Results of a voting recently held in the pages of the *British and Colonial Druggist*, as to the most popular makers of the various articles sold by Chemists, reveal the following indisputable facts under the heading of **Menthol Cones**:—

Votes for—

Hockin, Wilson & Co. 65
Christy & Co. 63
Maw 28
Castle Brand 5

161

Votes for—

Shirley's

A1 Brand 644

So that out of 805 votes, **SHIRLEY'S BRAND** obtained **80 per cent.**, whereas all other brands put together obtained but 20 per cent., or comparing each brand separately, **SHIRLEY'S** obtained—

Nearly 10 times as many votes as	Hockin, Wilson & Co.'s.
Over 10 " " "	Christy & Co.'s.
" 23 " " "	Maw's.
" 128 " " "	Castle Brand.

THE REASON IS SIMPLE.

Every endeavour has always been made to assist the retailer in selling

SHIRLEY'S A1 BRAND MENTHOL CONES,

By giving away Show Cases, Dummy Cones, Handbills, &c., the latest in this way being "**THE LITTLE CRIER.**"



This Elegant Bisouit-China Figure, an Ornament to any Shop,

GIVEN AWAY

To Purchasers of 25/- worth of

SHIRLEY'S A1 BRAND MENTHOL,

Or two if 40/- Order is Placed.

The following special parcels have been arranged to suit all classes of trade:—

Parcel 1, 25/-. 4 doz. 2d., 1 doz. 3d., 2 doz. 3 1/2d., 3 doz. 4d., 2 doz. 6d.
Parcel 2, 25/-. 4 doz. 5d., 2 doz. 4d., 1 doz. 1s.
Parcel 3, 25/-. 3 doz. 3d., 2 doz. 1s., 1 doz. 4d.
Parcel 4, 25/-. 1 doz. 8d., 2 1/2 doz. 1s., 1 doz. 1s. 6d.
Parcel 5, 40/-. 4 doz. 2d., 2 doz. 3d., 3 doz. 3 1/2d., 5 doz. 4d., 4 doz. 6d.
Parcel 6, 40/-. 6 doz. 5d., 3 doz. 4d., 2 1/2 doz. 1s.
Parcel 7, 40/-. 4 doz. 6d., 4 doz. 4d., 1 doz. 9d., 2 doz. 1s.
Parcel 8, 40/-. 4 doz. 1s., 2 doz. 9d., 1 doz. 1s. 6d.
By calculating what each of the parcels would realise when sold, it will be found that they yield an average profit of 50 per cent. to the retailer on his outlay.

1d., 2d. and 3d. **MENTHOL CONES** for those who are obliged to sell cheap shapes.

No. 110v. 1d. Vase shape, 3 doz. on a card. 7/6 gross.	No. 114. 2d. Varnished Pedestal shape, 3 doz. on card. 16/6 gross.	No. 115. 3d. Varnished Draughtsman, 2 doz. on card. 20/6 gross.
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A1 COCAINE MENTHOL TOOTHACHE TUBE.

Sells splendidly; 12 on a card, 3/6 dozen.

SHIRLEY'S 20/ CASE OF SMELLING BOTTLES.

Order one of these cases and you will not regret it. The case is lined with maroon velvet, and has a mirror back. The goods can be got at from the counter, as the case opens from the back. You can rely on a good assortment of bottles being sent you.

ARTHUR W. SHIRLEY, 55 FARRINGTON ROAD, LONDON, E.C.

NOTE REDUCED PRICES OF QUININE PILLS.

LIST OF "McK. & R." CAPSULE^D PILLS
OF THE BRITISH PHARMACOPŒIA AND OTHER STANDARD AUTHORITIES.

McKESSON & ROBBINS,
WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,
ESTAB. 1833.] **NEW YORK, U. S. A.** [ESTAB. 1833.

Supplied by the Principal Wholesale Houses in the Trade throughout Great Britain and Ireland.

The reputation of Gelatine-Coated Pills has been created by our manufacture.	DOZ. BOTTLES containing containing 25 100 PILLS. PILLS.		Being completely sealed, all substances are perfectly preserved from oxidation.	DOZ. BOTTLES containing containing 25 100 PILLS. PILLS.	
Aloin	5/	16/	Quinine, Bisulphate.....	5/	16/
"	8/	20/	" "	5/	18/
"	7/	24/	" "	5/8	18/
"	11/	40/	" "	7/8	28/
" Compound	7/	24/	" "	9/8	34/
" and Strychnine.....	7/	24/	" "	11/8	42/
" Strychnine and Bella donna	7/	24/	" Sulphate	5/	16/
" or Aperient, No 1 (Clark).....	9/	32/	" "	5/	18/
" " No. 2, No. 3, No. 4	7/	24/	" "	6/	20/
Morphine Muriate	7/	24/	" "	8/	28/
"	9/	32/	" "	10/	36/
Narcotic Extracts (Brown-Sequard)	16/	56/	" "	12/	44/


A Complete List of Formulas and Prices will be mailed promptly on application.

In ordering, be careful to specify "McK. & R." CAPSULED PILLS.

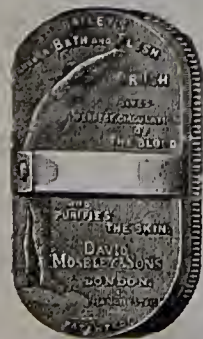
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BAILEY'S RUBBER BRUSHES



inches by 3 inches.

Our Bath and Flesh Brushes have been so well received by the trade, and have met with such ready sale, that it is unnecessary for us to say anything in praise of them here. We shall continue to make them of the very best quality of rubber obtainable, and, as we are advertising them largely, we have every confidence that they will continue to sell well.

PRICE 5/each (in neat metal cases and with wood handles), or **£2.2s. per dozen.**

THE NEW RUBBER SHAMPOO BRUSH

SIZE, 7 inches by 7 inches.

The whole as soft and pliant as a silk handkerchief. Eradicates Dandruff, and thoroughly Cleanses the Scalp and Hair of all Impurities, simply by using with pure soap and water. For bathing the Neck and Face, or Children, will be found delightful.

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Price Lists, Air Goods, Water Bottles, Sponge Bags, Elastic Bandages, &c.,
UPON APPLICATION.

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Nothing has ever been invented that will so thoroughly cleanse and whiten the hands as our rubber brushes. Used with soap and water they will remove all kinds of stains without injuring the most delicate skin. They are made of the best Pará Rubber, and will last for years.

Price, with wooden handles, 1/ and
each retail, or 8/ and 17/ per doz.



BOTTLES



The undersigned have not advanced
their prices.

WRITE FOR QUOTATIONS
AND
SEE PRICE LISTS.

We call attention to our

SPECIAL SQUARES.



FIG. 1a.

BOTTLES—GLASS, DISPENSING.

4a. SPECIAL SQUARES, Tinted (Fig. 1a)—

2	3	4	6	8	10	12	16	20	ounce.
7/6	8/-	8/-	8/6	9/-	12/6	13/-	18/-	21/6	gross.

4b. SPECIAL SQUARES, White (Fig. 1a)—

2	3	4	6	8	10	12	16	20	ounce.
8/3	8/6	9/6	10/9	13/-	16/-	18/-	20/-	25/-	gross.

The above quotations are for original crates, containing about—

2	3	4	6	8	10	12	16	20	ounce.
16	12	10	8	7	5½	4	3	2½	gross.

We also supply in 1-gross Crates at an advance of 1/- per gross, which is smallest quantity supplied.

EVANS, SONS & CO., LIVERPOOL.
LONDON:
EVANS, LESCHER & WEBB.

TO THE TRADE.

ST. JACOBS OIL

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We are having ILLUSTRATIONS prepared for between 30 and 40 different designs of "COUNTER WRAPPER."

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SIZES.

As we are particularly anxious to have these made in Sizes to suit the requirements of the general Retail Trade, we beg that Chemists everywhere will, during the next week, kindly send us the measurements of "COUNTER WRAPPERS" which they consider most useful, and best calculated to meet the various requirements of the Retail Trade. We shall, after receiving the views of the Trade, make them in the various Sizes which we consider will be the most useful.

Yours very truly,

p.p. **THE CHARLES A. VOGELER CO.**

45 Farringdon Road,
London, E.C.

WILLIAM E. GEDDES, Manager.

January 18, 1890.

CORDES, HERMANNI & CO.

ICHTHYOL.

The New Remedy for Rheumatism, Skin Affections, &c.
 ICHTHYOL supplied to the Trade in 1-lb. tins, at 15/- per lb.; and in
 1-oz. bottles at 16/- per dozen.
 ICHTHYOL CAPSULES (4 minims in each) supplied in bottles contain-
 ing 50, at 24/- per dozen.

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Farbwerke vorm. Meister Lucius & Brüning,
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Prof. Germain Séé says:—"It is the remedy for pain."
 ANTIPYRIN TABLOIDS supplied to the Trade in bottles containing
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 ANTIPYRIN in Powder or Crystals, 3/5 per oz.

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THE SAFE AND RELIABLE HYPNOTIC.
 PRICES.—SULPHONAL-BAYER supplied to the Trade at
 1/6 per oz.
 SULPHONAL TABLOIDS (5 gr.), in bottles of 25 and 100, at
 12/- and 35/- per dozen.

Sold by BURROUGHS, WELLCOME & CO.

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THE SCIENTIFIC AND PRESERVABLE OINTMENT BASE.
 DOES NOT TURN RANCID.
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 (Ung. Lanolini), 2/2 per lb. Anhydrous Lanoline Base, 2/10 per lb.

B. W. & CO., Agents in Great Britain, the Colonies and India,
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DR. VON HEYDEN NACHFOLGER,
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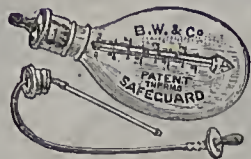
SALOL.

Highly recommended in Cholera, Rheumatism, &c.
 SALOL IN CRYSTALS supplied to the Trade at 1/3
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 100, at 12/- and 36/- per dozen.

B. W. & CO., Wholesale Consignees, Great Britain.

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THE THERMO-SAFEGUARD FEEDING BOTTLE (B. W. & CO.)



As a Practical and Scientific Invention for protecting the lives of infants, nothing, except Fairchild's discovery of the pure Zymine Peptonising agents, has of late years approached in importance the Thermo-Safeguard Feeding Bottle.

The Thermo-Safeguard Feeding Bottle has a thermometer imbedded in the glass in such a manner as to correctly and distinctly indicate the temperature of the contents. It has the further advantage (since the bottle is marked in ounces) of giving a register of the exact amount of food taken at each feeding, thus tending to avert the evil of over-feeding. It is specially adapted for use in connection with the Zymine Peptonising Powders (Fairchild).

"The Bottle has a great deal to recommend it."—*British Medical Journal*.

"The best of all Feeding Bottles, and ought to be universally used."—*Edinburgh Medical Journal*.

No. 1 ... 9/- per doz.

No. 2 ... 12/- per doz.

No. 3 ... 22/- per doz.

Above prices subject to usual discount.

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See Recommendatory Notice of Medical Press and Opinions of the leading Dermatologists

WRIGHT'S

Detergens, acting for four hours, arrested future growth."

Of all Druggists, Wholesale and Retail, throughout Great Britain, Ireland, and Colonies.

From the *Lancet*, Dec. 22, 1886:—"In our hands it has been a most effective agent in skin diseases, especially of the chronic eczematous class, and one class of psoriasis which had resisted all other kinds of treatment speedily got well under the application of the *Liquor Carbonis Detergens*. We esteem it a very valuable addition to our list of skin remedies."

871:—"We have tested it, and can affirm its value as a detergent agent. We consider the *Liquor* is an article of great utility."

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies.

W. V. WRIGHT & CO., 48 Southwark Street, LONDON.

LIQUOR

CARBONIS

DETERGENS.

Extract from the Proceedings of the Royal Society of Edinburgh:—"Experiments on the Chief Disinfectants of Commerce, with a view of ascertaining their power of destroying the spores of the 'Anthrax Bacillus,' by a Medical Officer of Health and Public Analyst. A 10 per cent. solution of *Liquor Carbonis Detergens*, acting for four hours, distinctly retarded growth of Anthrax, for the spores, whether in gelatin-pork or in the broth, did not commence developing for 24 hours. Undiluted *Liquor Carbonis Detergens*, acting for four hours, arrested future growth."

The *Practitioner* of September, 1881:—"Eczema connected with varicose veins of the leg—also Pruritus Scroti, Labiorum, and Ani—is best relieved by weak tarry lotions, one of the best of which is *Wright's Liquor Carbonis Detergens*."

P. McLEOD, Colonel R.A., Inspector-General of Ordnance, Ordnance Office Madras, writes Sept. 10, 1887:—"I can certify that 'Liquor Carbonis Detergens' has cured me of a PSORIASIS of 21 years, incurred in Burmah, after every effort of such an able skin doctor as Sir Erasmus Wilson had failed."

From the *Medical Times and Gazette* Jan. 19, 1867:—"We have more than once called attention to the value of this remedy in chronic eczema."

From the *British Medical Journal*, Sept. 22



THE GREAT VEGETABLE BLOOD PURIFIER

SWIFT'S SPECIFIC

KNOWN AND APPRECIATED THROUGHOUT THE CIVILIZED WORLD. ITS SUCCESS IN THE TREATMENT OF ALL DISEASES THAT RESULT FROM BLOOD TAIN OR BLOOD POISON HAS BEEN UNPRECEDENTED, THOUSANDS WHO HAVE BEEN GIVEN UP AS HOPELESSLY DISEASED, HAVING BEEN NEALED AND MADE HAPPY BY ITS HEALTH-GIVING PROPERTIES. IT Cures Scrofula, Eczema, Rheumatism, Old Sores, Cancer, Catarrh, Contagious Blood Poison, &c.

AND CONTAINS NO MERCURY, IODIDE OF POTASH, ARSENIC, NOR ANY OTHER POISONOUS DRUG.

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The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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PUBLISHER'S NOTICE.

OUR issue of next week (January 25) will reach as nearly as practicable all the principal buyers and importers of drugs throughout the British Empire—United Kingdom and Colonies. It will be a specially attractive number, and no firm doing business with druggists should be absent from its advertising pages. Arrangements must be made with the publisher before Wednesday, January 22. Advertisements of situations, businesses for disposal, &c., will be received until Friday morning's post as usual.

POST-CARD COMPETITIONS, 1890.—No. 1.

REPLIES must be sent in on post-cards only; subscribers, their families, or their employes alone are eligible; and answers for competition must be in our possession by the last day of the month. For January we offer the usual guinea for the best

OUTLINE OF AN HOUR'S LECTURE

such as it might be useful for a chemist and druggist to deliver to a school, literary institute, or miscellaneous audience. The post-card should indicate the title of the lecture, and present a skeleton of the treatment, with references to illustrative experiments or exhibits if it should be thought fit to introduce these. We do not lay down any limits as to the topics to be chosen, but it is expected that all the outlines of lectures sent in will be on a subject bearing some relation to the occupation of the pharmacist.

Obituary.

ALLHUSEN.—Mr. Christian Allhusen, one of the best-known chemical manufacturers and merchants of Newcastle-on-Tyne, died at his residence, Stoke Court, Buckinghamshire, on January 13, at the age of 84. Born at Kiel, in Germany, in 1806, Mr. Christian Allhusen, came to England when quite young, and commenced business in Newcastle as a corn merchant. In 1827 his friend and fellow-countryman, the late Mr. H. W. F. Bolckow, joined him, and the house soon got into a large way of business as corn merchants and ship and insurance brokers. Mr. Allhusen afterwards withdrew from the firm, which still exists as Borries, Craig & Co., and in which one of his sons has still an interest. Mr. Bolckow, his partner, afterwards became one of the founders of the famous ironworks of Bolckow & Vaughan, at Middlesborough. In 1840 Mr. Allhusen entered into the chemical industry on the Tyne, becoming the possessor of the works that were previously known as "Attwood's." The works were then small, but under the personal care of Mr. Allhusen first, and then of his son and nephew, they have grown to be amongst the most extensive in the kingdom. An enormous plant for the production of high-strength caustic soda was put down, and now a vast expenditure is being made to erect new sulphur-recovery works. In all this Mr. Christian Allhusen took great interest, and the vast works near Gateshead are memorials to his shrewd business tact. Years ago the works became the property of the Newcastle Chemical Works Company, of which Mr. Allhusen has been chairman, and in which he had a large interest. Mr. Allhusen was one of the projectors of the Whittle Dene Water Company, and down to the time of his death was one of the directors of its successor, the Newcastle and Gateshead Water Company. He was an early president of the Newcastle Chamber of Commerce, and was also a director of several public companies. Mr. Allhusen was a Liberal in politics, and in recent years adhered to the Liberal Unionist side. In religious views he was attached to the Episcopal Church. He was a strong supporter of free trade, and he interested himself actively in Mr. Cobden's scheme for establishing a treaty of commerce with France. Along with the late Sir Joseph Cowen he was appointed by the manufacturers and mine-owners of the North of England to represent their interests at the conferences that were held in Paris during the time that Mr. Cobden was negotiating the treaty with the Government of Napoleon III. Mr. Allhusen had a numerous family, and one of his sons, Mr. Wilton Allhusen, is now at the head of the executive of the Newcastle Chemical Works. Mr. Allhusen lived for some time in Elswick Hall, the mansion which stands in what is now known as Elswick Park; and he removed to the south of England some seventeen years ago, and took up his residence near Windsor.

BALLARD.—On December 20, Mr. Arthur Ballard, chemist and druggist, Market Place, Farringdon. Aged 49.

BEANLAND.—On December 16, Mr. Samuel Beauland, chemist and druggist, Great Horton, Bradford. Aged 63.

BELLHOUSE.—On January 15, at Dublin, Mr. John Bellhouse, for many years sub-manager at Messrs. Graham's pharmacy, Westmoreland Street, Dublin.

BROWN.—On December 25, Mr. Harry Walter Brown, chemist and druggist, Blackfriars Road, London. Aged 27.

GEDDES.—At Abercherder, on January 14, George Geddes, chemist and druggist. Aged 44.

MATTHEW.—Mr. Josiah Matthew has just died at Croydon in his 71st year. He was one of the old Mitcham peppermint-growers, and very much respected. He was probably the first to employ steam in the distillation of the peppermint oil. He retired a few years ago, the business being carried on by his sons, under the style of "J. & R. V. Matthew Bros.," at Croydon.

SANDELL.—On January 5, of pneumonia, Mr. Thomas Oliver Sandell, pharmaceutical chemist, F.C.S., Keano Terrace, West Kensington. Aged 45.

CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

REPORTS.

THE mixture of salts which formed the subject of the last exercise in qualitative analysis consisted of 4 parts of borax to 1 of Epsom salts, and its calculated composition was:—

Mg	..	..	..	..	..	1.95
Na	..	..	..	..	..	9.63
SO ₄	..	..	..	..	..	7.81
B ₂ O ₃	..	..	..	..	..	32.67
H ₂ O	..	..	..	..	..	47.94
						100.00

There were thirty-nine reports sent in, and of these thirty-nine were correct so far as the detection of the constituents of the mixture was concerned. Only eight of our correspondents, or about one in every five, failed to ascertain the composition of the mixture correctly. This is most satisfactory, especially when it is considered that one of the constituents was present to the extent of less than 2 per cent. The few errors that were made were chiefly due to magnesium being mistaken for aluminium, and phosphoric for boracic acid.

In preparing a solution of the mixture many of our correspondents observed that, although the substance was completely soluble in cold water, it failed to yield a clear solution with hot water. Or if the cold solution was boiled a precipitate separated, and, on cooling, the precipitate redissolved. A phenomenon of this kind is not often observed. The precipitate consisted probably of one of the numerous magnesium borates, but its composition was dependent to some extent upon the strength of the solution. The precipitate when separated and washed with cold water has been said to consist of magnesium orthoborate in a hydrated form.

PRIZES.

The First Prize for the best analysis has been awarded to
H. L. STONHAM, Olney House, Maidstone.

The Second Prize has been awarded to
W. H. GOY, care of F. Dickinson, 13 St. Mary's Street, Stamford.

Marks Awarded for Analyses:

H. L. Stonham (1st prize)	..	100	H. Garnett	..	..	88
W. H. Goy (2nd prize)	..	98	H. Bowden	..	..	85
F. W. Fowan	..	96	Sabin	..	..	85
Repoco	..	96	H. W. Colley	..	..	85
Saponis	..	95	Triticum	..	..	80
Maranta	..	95	R. Roberts	..	..	80
Ajax	..	95	Cavendo tutus	..	..	80
J. H. T.	..	95	Renrut	..	..	80
Colin M. Barnes	..	93	Pharmacy	..	..	75
A. W. Sikes	..	90	T. Gutteridge	..	..	75
Edinburgh	..	90	Ethyl	..	..	75
Dexter	..	90	W. B. Bell	..	..	70
W. L.	..	90	Danwer	..	..	60
Col. Chicum	..	90	Fluorine	..	..	60
F. J. P.	..	90	Moyhitt	..	..	60
Flo Pacem	..	90	R. H. C.	..	..	60
H. G. Woodliffe	..	90	E. P. Greenhalgh	..	..	60
A. Howard	..	90	Lapis Lazuli	..	..	55
J. E. Mason	..	80	A. M. S.	..	..	55
A. L. Doran	..	88				

QUALITATIVE ANALYSIS.

A mixture of two salts will again form the subject of the exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination, the constituents of the mixture are to be detected, and all other substances proved absent. Students' reports should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

Students' applications for portions of the mixture will be received up to Wednesday morning, January 22, and the samples will be forwarded immediately.

Students' reports will be received up to Wednesday morning, February 5.

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

••• All communications should include the names and addresses of the writers.

H. L. STONHAM.—Your report was very creditable, but might have been condensed with some advantage.

DEXTER.—The fumes which you observed on heating the mixture with concentrated sulphuric acid consisted at first of aqueous vapour, then, as the heat increased, of sulphuric acid; same boracic acid would also be carried over, but would not produce any visible effect. It must be remembered that the sulphuric acid itself is volatilised if the heat is strong enough.

COL. CHICUM.—You were scarcely justified in concluding that the only acid radicles that could be present were those which you detected. It must be assumed that any radicle which is not in some way proved absent may be present.

F. J. P.—In your examination for the acid radicles you omitted in several cases to state the inferences drawn from the results you observed.

H. BOWDEN.—You might have separated the magnesium from the original aqueous solution, for the purpose of applying a confirmatory test, by adding an alkali or alkaline carbonate. This method was clearly not applicable after salts of ammonium had been added to the solution.

TRITICUM.—You did not make enough out of the preliminary examination in the dry way. It by no means follows from your report that there were no other acid radicles present.

RENROT.—We cannot agree with you as to the omission of test for what you call unlikely acids. A mixture of two salts might contain more than two acid radicles; moreover, any acid radicle might be present accidentally.

PHARMACY.—You were satisfied with proving the presence of the boracic and sulphuric radicles without going any further into the matter. Other acids might have been present. See remarks to Renrut.

ETHYL.—You might have derived a great deal more information from the examination of the physical properties of the mixture, its behaviour when heated, and other preliminary tests. The mere heating of the mixture would have proved the absence of organic matter, for example.

W. B. BELL.—You omitted to prove potassium absent. Small quantities of acids such as nitric and hydrochloric might be overlooked in the Preliminary examination. You should examine for them by the wet method as well.

DANWER.—The conclusion at which you arrived placed you in a difficulty. It was clear that magnesium phosphate could not be a constituent of a mixture so readily soluble in water. Your proposal to regard the phosphoric radicle as combined with sodium is ingenious, but unfortunately matter will not adapt itself to your requirements in that convenient way. You forget that when sodium phosphate and magnesium sulphate are brought together in solution you cannot prevent magnesium phosphate from being formed. You straddled a point in concluding that the silver nitrate precipitate was yellow. We are surprised that you failed in detecting the borate by means of the alcohol test; the green flame was unmistakable. Are you sure you did not forget to add the sulphuric acid?

FLUORINE.—You were mistaken in concluding that the barium chloride precipitate was soluble in hydrochloric acid. The greater part of it was, as it consisted of barium borate, but some remained undissolved.

MOYHITT.—The solution to which you added the sodium phosphate must have been very dilute, or you must have concluded too hastily that no precipitate was formed.

R. H. C.—See remarks to "Moyhitt."

E. P. GREENHALGH.—The production of a precipitate on adding am-

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JAN. 18, 1890.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

OFFICES: 42 CANNON ST., LONDON, E.C.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 10 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the next issue.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE and crossed MARTIN & Co.

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4. LONDON, W.C.—Retail and Dispensing; situation admits of large amount of business, being in the main thoroughfare; returns £800; increasing; handsome shop; price £800.

5. LONDON, S.E.—Dispensing, Prescribing, and General Retail; situate in a capital business locality; returns about £800 yearly, admitting of considerable increase; well fitted and attractive shop, and first rate stock; good 8-roomed house, with private entrance; price £750.

6. LONDON, N.E.—Retail and Dispensing Business, in a good middle-class locality; very nicely fitted shop, and comfortable house with garden; business returns £450; price about £450.

7. LONDON, N. (Within 25 miles of).—Death vacancy; an old-established good-class business; situate in a pleasant town; good roomy shop and excellent house; returns, under indifferent management, £450; about £450 required, to include house fixtures; full investigation.

8. WEST OF ENGLAND (Seaport).—Retail and Prescribing, and Dispensing Business; corner shop in very commanding position;

returns £800 yearly; good house; price about £500. The business is unusually profitable, and can be much increased by a business man.

9. GLOUCESTER.—Dispensing and Retail Business; rapidly increasing; for disposal on account of vendor's ill health; present returns between £7 and £8 per week; good and attractive shop, and very convenient house; price about £300; very liberal terms to immediate purchaser.

10. SUSSEX.—Attractive locality; good-class dispensing and retail; established many years; returns about £700 yearly; full prices for everything; modern shop; comfortable house and garden; price £640.

11. DEVON.—In a large fashionable town; an old-established handsomely fitted shop; returns £600 yearly, with good profits; commodious house, held on lease; rent moderate; price about £600.

12. SOUTH OF ENGLAND (Seaside).—Dispensing, Prescribing, and Retail; very good class profitable business; returns £550; handsome shop; good house, garden, &c.; price about £550.

13. DERBYSHIRE.—Good-sized town; Retail and Dispensing Business; returns £1,100 yearly; patents of reduced prices; neatly fitted shop; good stock; capital position; stock and fixtures at valuation; no premium required.

14. SOUTH WALES (Seaport).—Prescribing, Dispensing, and General Retail; returns £450 to £500 yearly; easily increased; well-fitted shop and good stock; price £400.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION. Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE

LANCASHIRE.—Popular seaside resort; Branch Retail; returns £300; can be doubled by personal attention; Dispensing and Light Retail; valuation about £200.

SUSSEX.—Seaside; Light Retail and Dispensing; good prices; returns £500; price £450.

SURREY.—Unopposed good-class Light Retail, Dispensing, and Prescribing, with Gilbey's agency; returns £1,150; appointment worth £65 per annum; good house; price £800.

DERBYSHIRE.—Light Retail, Prescribing, and Dispensing; returns £1,100; valuation about £600.

EASTERN COUNTY.—Good country Retail and Agricultural; returning £1,000; excellent house; agency worth £25 per annum; price £80.

LONDON, S.W.—Light Retail; returns over £500; more than half net profit; price £350.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FOR immediate disposal; a good Mixed Business in busy thoroughfare; neatly fitted up, all new; must be sold soon; price £200; returns £400. Apply, Mr. J. H. Green, 8 Prince's Street, Bishop Auckland.

An old-established Shop, fitted and partly stocked (London); price £40, or fittings and stock would be sold a bargain. "Business," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR immediate disposal; first-class Chemist's Retail and Dispensing; returns £800; good position, main thoroughfare, W.C. district; well stocked and handsome fittings; price £700; 15 years' lease. Apply, "Chemist," Norfolk House, Cindra Park, Upper Norwood, S.E.

OLD-ESTABLISHED Business; shop double-fronted, well fitted and stocked; valuable Proprietary Medicines; cash trade; popular locality; age cause of disposal; state amount of purchase money. Address to C. M. K., Miss Atkinson, 40a King William Street, London Bridge, E.C.

FOR immediate sale, Uxbridge Drug Stores, 51 St. Andrew's, Uxbridge; rent £35; lease 24 years (established 4 years); a chemist could double profits; price £200, or offer for lease, goodwill, and fixtures; stock about £180, at current prices; owner leaving England only cause of selling. Apply, Thomas Skinner, 51 St. Andrew's, Uxbridge.

GOOD opportunity for a young and energetic man, with small capital, a Chemist's Business, established 18 months, in a new and fast-increasing neighbourhood, suburbs of a large town; returns £3 weekly, might be more than doubled under different management; rent £16. Apply, L. R., 83 Christ Church Street, Ipswich.

MIDLANDS.—Good-class Retail and Dispensing Business to be sold through retirement; returns £1,000; net profit about £400; low rent; good house, same hands many years; lowest cash price £600, or by fair valuation; strictest inquiry courted. Principals only to "Fructus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PATRONISED by Royalty.—Established 23 years; Light Retail, Dispensing, and good Prescribing Business; corner position; handsome fittings, well stocked; most healthy suburb of a large city; good house, low rent; returns over £600; net profits £200; price £650; owner retiring from the drug trade. Address, "Miuor," 54 Gower Street, Lozells, Birmingham.

MID-SUSSEX.—Very attractive locality; a light Retail and Dispensing Business; returning £700 at full prices; handsomely fitted shop, modern style, well-stocked, convenient house, stable, &c; rent £30 or lease, price £500, or reasonable offer; satisfactory reasons for selling. "Cora," c/o Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY.—An old-established Agricultural and Family Business, with wine and beer licences attached, in a good market town in Lincolnshire. Population 1,600. Many miles from any large town. One other chemist only. Fair prices, no cutting. Incoming at valuation, about £350. Business in the late proprietor's family fifty years, and affords a rare opportunity for an energetic capable man to further develop its various branches. Full particulars from Lofthouse & Saltmer, Wholesale Druggists, Hull.

HAMPSHIRE.—First-class small but highly remunerative country agricultural business, with stationery, Gilbey's wine, and other profitable agencies, in a district bordering on the New Forest, surrounded by the seats of county families; in hands of present proprietor nearly half-a-century; capable of considerable extension; no dentist in the town, and no other chemist within a radius of six miles; price to an immediate purchaser, about 1,000; lease granted or premises would be sold; the fullest investigation solicited; no agents. Address in first instance, Haydon, Fordingbridge.

FOR disposal, an old-established Dispensing Business in a fashionable town in the West of England; doing a profitable trade; price £550. For further particulars apply, "Fides," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON.—Main road, good position; not very long established; trade gradually increasing; well fitted and stocked; house small, rent low, long lease, optional; a bargain to an energetic man; open to good offer; satisfactory reasons for disposal. Address, G. Oppen, 32 Alfred Street, Islington, N.

LONDON, N.—Business for sale, or Partnership entertained; shop large, well fitted with fair stock; owing to illness and neglect, the returns are at present small, but capable of increase by close attention. Full particulars on application to "Statim," Ryton Lodge, Beaconsfield Road, New Southgate, N. No Agents.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED immediately, a sound Business, returning about £800 £1,000, or Partnership with view to succession in a larger concern; must bear every investigation; locality immaterial.

WANTED, a light Retail and Dispensing Business; a few miles out of London (banks of Thames preferred) or in W.C. district; cash at command, £300, or more for a genuine business. Mr. H'll, Pharmacist, 160 Stockwell Road, S.W.

WANTED, a light Retail and Dispensing Business, returning about £1,000 to £1,500 a year, in the C. ty. Full particulars, in confidence, to Specs. Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, in Yorkshire or Lancashire, good general Business, returning from 700l. to 1,000l.; can take immediate possession. Y. & L., c/o THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

WANTED, good-class Business, returning from 1,000l. to 1,200l.; must bear strict investigation; state size of house and rent. "Plus," c/o THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

SALE BY AUCTION.

Under Distress for Rent. Removed from 181 Wardour Street. Trade Fixtures and Utensils, Office Furniture, and a small Stock of a Wholesale Chemist and Druggist.

MR. MILLAR will SELL the above by AUCTION, at 8 BARLOW MEWS, Brinton Street, W., on Tuesday next, January 21, at One precisely; on view day prior to and morning of sale; cat-logues on the premises, and at the Auctioneer's offices, 14 Grafton Street, Bond Street, and 8 Wellington Road, St. John's Wood.

SALE BY TENDER.

SALE BY TENDER. 60 Queen Street, Ramsgate, Kent. Messrs. Berdoo & Co. are instructed to sell by Tender the Goodwill, Stock, and Fixtures of this old-established light Retail and Dispensing Business, centrally situated in one of the best positions in Ramsgate. Premises comprise large double-fronted shop, well fitted in mahogany, heavily stocked, good residence with cottage in rear, held on lease at a moderate rental. The returns last year were £2,400; gross profit £730; net profit over £500; stock and fixtures are worth over £500. Tenders may be made either in a lump sum, or premium for goodwill and valuation; any sum over £600 may remain for 12 months. Tenders will be received up to Tuesday, February 4, 1890. Printed forms and particulars on application to Messrs. Berdoo & Co., 30 Jewry Street, Aldgate, E.C.

FOR SALE.

FOR SALE, Shop Fittings.—One 13-foot range second-hand mahogany-fronted drawers and cupboard, lockers under and shelving over, £8; one 9-foot second-hand mahogany top counter, repolished, 15 drawers, £5; one mahogany desk and case, repolished, 47s. 6d.; one plate-glass mirror; in ebonised frame, 42 by 42, 40s. New Fittings.—One 12 foot range mahogany drawers, glass labels and knobs, £9; one ditto, deal drawers, finished to imitate mahogany, gold labels, and glass knobs, £6 12s.; one 6-foot dispensing screen, mirror, and marble slab in centre, £5 10s.; one ditto, new design, £7 10s.; one bent front tooth-brush case, 25s.; three 3-gallon carboys, 7s. 6d. each; three 4-gallon ditto, 10s. each; 12 4-lb. best pink shop jars, 4s. 6d. each; 12 3-lb. blue ditto, 2s. the lot; a complete set of jars and bottles for a shop, £9. R. Tomlinson & Sons, Medical Fitters, Bond Street, Constitution Hill, Birmingham.

TO LET.

TO be Let or Sold, with immediate possession, a good Chemist's shop; excellent house and premises and garden; splendid position, in main road. For further particulars apply T. Bunker, 37 Union Grove, Clapham, S.W., near the shop.

PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

PARTNERSHIP.—A gentleman of many years' experience is wishing to join a Wholesale house as Junior Partner: would not object to travel four days a week: could invest from £200 to £3,000. Address, "Index," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A QUALIFIED Chemist, &c., in business, would like to enter into partnership with one well up in all branches of dentistry; good opening and introduction; small capital; must be steady and sober, and have first-class references; only qualified dentists need apply: interview desired. "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

AS Apprentice, aged 17; respectably connected; one year's experience. Care of Mr. Humphry, 1A Fore Street, Brixham, Devon.

WANTED, to Apprentice a Youth (17), where he would thoroughly learn the business, and be under good influence; moderate premium. W. J. Hodges, Mostyn Boscombe, Boarnemouth.

STONE & SON, Dispensing and Family Chemists, Exeter, have a vacancy for an outdoor apprentice; every opportunity given for acquiring thorough knowledge of the business; moderate premium, which will be returned as salary during term. Address, Thomas Martin, 16 Bedford Circus, Exeter.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, an active and obliging Junior of good address; age about 22. Apply personally, D., 80, Wigmore Street, London, W.

A JUNIOR; one accustomed to the General Retail trade: state age, references, and salary. Apply, G. White, Druggist, 115 Hall Street, Dudley.

IMMEDIATELY.—A Junior, aged 23. An arrangement could be made with a gentleman preparing for the Minor. Bathe, 292 High Road, Coiswick.

WANTED, at once, a really good Counterman, Prescriber, and Tooth Extractor: well-up in quick counter trade and dispensing. Ince, Dunley, Worcestershire.

IMMEDIATELY, a competent Assistant; qualified preferred; must have good references: apply personally, if possible. F. W. Rouse, 114 High Street, Clapham, S.W.

CHEMISTS and Druggists.—John Barker & Co, Kensington High Street, W., require a qualified Dispenser, also a smart Salesman; close on Saturdays at two o'clock; no Sunday duty.

IMMEDIATELY; good Junior Assistant; one able to extract teeth preferred. Apply, with full particulars, enclosing carte (to be returned), Beech, 352 Monument Road, Birmingham.

WANTED, at once, Junior Dispenser in private surgery: must be quick and accurate; salary £50 and lodging; no board. Write, stating references, &c, to R., 115 High Street, Croydon.

WANTED, in a General Store, capable pushing hand for Snie Counter one who could develop the department, important. Apply, by letter, "Druggist," Mr. W. H. Hart, Carr's Lane, Birmingham.

A DENTAL SURGEON in first-class practice, has a vacancy for a well-educated youth as a Pupil; premium required. Address, L. D. S., care of Messrs. Arblaster & Churchill, New Street, Birmingham.

WANTED, Junior Assistant (outdoors): Minor qualification; Wednesday half-holiday; state salary and all usual particulars, enclosing photo (to be returned). J. B. Emerson, 8 Church Street, West Hartlepool.

EXPERIENCED Clerk, with knowledge of the Drug trade; must be a quick and accurate accountant. State salary and full particulars to the Southern Drug Co. (Lim.), 182 High Street, Southampton.

ASSISTANT wanted at once in good class Light Retail and Dispensing Business. Apply personally to A. O. Goodchild, Harlesden, near Willesden Junction.

WANTED immediately, a Junior Assistant; indoors; knowledge of Homœopathy essential; time for study if required. Full particulars, stating age, salary required, and references, to R. Skinner, Homœopathic Chemist, Bromley, Kent.

JUNIOR wanted immediately, age from 19 to 22; indoors; hours short; Drugs only; home comforts; send photo. Scott, Chemist, Bodmin, Cornwall.

JUNIOR or Improver, at once; outdoor; one other kept. Apply, with full particulars, and enclose photo, to H. C. Thorne, 63 Western Road, Hove, Brighton.

ASSISTANT, Junior, or Improver; outdoor preferred. Apply, with full particulars, reference, and salary required, F. Adam, 33 Pigott Street, Birmingham.

AN Assistant wanted for Light Retail and Dispensing Business; one accustomed to London trade preferred. J. N. Loesby, 4 Thayer Street, Manchester Square, W.

JUNIOR DISPENSER, qualified and well trained. Apply personally if possible, or send carte with full particulars, to W. Martindale, 10 New Cavendish Street, W.

WANTED, immediately, an energetic Assistant with good references: full particulars as to age, height, salary, &c., with photograph if possible, to Peacock & Co., 82 Stokes Croft, Bristol.

TRAVELLER wanted, with good connection amongst wholesale Druggists and Sundrymen. Letters with particulars, to A. B. Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a Junior: abstainer; must be active, energetic, and obliging. Apply, with full particulars as to age, height, and salary (indoors), enclosing photo., R. Banbury, 390 Waiworth Road, S.E.

JUNIOR; aged under 20: energetic and willing; for Light Retail and Dispensing; Wales or Cornwall. State terms to "Veronica," 114 Stroud Green Road, London, N. Applications not replied to declined.

AT once, competent Assistant for front counter, indoors; also reliable and smart Dispenser: brisk cash business. Apply, stating full particulars, to Lewis's Drug Stores, 22 and 24 Great Portland Street, W.

WANTED, a Senior and a Manager for Branch; good varied experience; Tooth Extractors; married; good references indispensable; permanency; good salary given. Address, X., Evans, Sons & Co., Liverpool.

WANTED, qualified Assistant as Dispenser; married, to live on premises, unfurnished house found. Full particulars of previous engagements, age, height, salary required, and photo, to Wand, Chemist, Haymarket, Leicester.

WANTED, an experienced and competent Assistant to take charge of the Wet Counter in a Wholesale Drug Warehouse. Apply, with references, and state amount of salary required, to "Alpha," care of Loft-house & Saltmer, Hull.

WANTED immediately, for about 6 weeks, a competent Assistant; must be qualified, of good appearance, and address, and have a practical knowledge of surgical and mechanical dentistry. Apply, W. F. Bartle, 16 Church Street, Greenwich, S.E.

WANTED immediately, Junior or Improver of good address, for a Light Retail and Dispensing business; time for study; comfortable home; small salary. Apply, with photo, references, and all particulars, to W. Sharpe & Son, Barton Street, Gloucester.

DISPENSER wanted for the Chemical Department of Harrod's Stores (Limited), 101 and 105 Brompton Road, S.W.; must be fully qualified. Applications by letter only, giving full particulars, and marked "Dispenser," to be addressed to the Secretary as above.

SUNDRIES.—Wanted, by a London House, a thoroughly competent man to take charge of this department. Reply by letter, stating age, salary required, and where previously employed, "Periodate," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Qualified Assistant, for Spanish Honduras; 4 years' engagement: first £100, second £120, third and fourth £140; board and lodging; passage paid out. Apply to W. J. B., care of Messrs. Burgoyne, Burbidges & Co., 16 Coleman Street, London, E.C.

QUALIFIED Assistant for Bournemouth, to assist at front and dispensing counters, take charge of stock, &c.; must be quick and industrious and of good business habits: married preferred; salary £100. Send full particulars to the Southern Drug Co. (Lim.), 182 High Street, Southampton.

WANTED immediately, Junior Assistant; indoors; accustomed to good mixed general trade; must be a neat dispenser, reliable and obliging. Apply, enclosing carte (to be returned), stating experience and salary required, to R. H. Keames, Bilston, Staffordshire. Easy hours and no Sunday duty.

JUNIOR or Improver required, in a good retail business; opportunity for attending classes given to a quick, industrious, steady young man; as proprietor lives away it is essential that no one applies but whose character and habits are good. An Apprentice also required. Frederick Gibson, Gooch Street, Birmingham.

WANTED, immediately, a smart Junior for East London business; permanency to good man; hours 8 to 10.30, one afternoon per week allowed; references must bear strictest investigation. Apply, stating salary, and enclose photo, to Prioo & Co., Chemists, 32 East Street, Barking, Essex. Also vacancy for Improver or Apprentice.

WHOLESALE DRUGGISTS in North of England require two Junior Assistants for office and warehouse; must have had experience with figures, and be good writers. Apply, stating age, salary required, &c., to "Wholesale," care of Messrs. Meggeson & Co., Miles Lane, Upper Thames Street, London, E.C.

AT ONCE, for a First-class West-end Drug Stores, competent Assistant—front counter—indoors; salary, £60. Also quick and accurate Dispenser; salary, £50. Apply, giving all particulars (none others answered), to K., 195 Upper Whitecross Street, E.C.—Vacency for a Smart Lad or Impurver for Bookkeeping, &c.

WANTED, as Manager of a large Chemical and Pharmaceutical factory, a thorough Chemist, with practical manufacturing experience and good executive ability; all communications will be treated in strict confidence. Address, by letter, stating age, salary, experience, and full particulars to W. A. M., care of Crossley, Moir & Co., Advertising Agents, 57A Coleman Street, E.C.

DISPENSER, qualified, wanted for a steadily growing Drug company in Manchester having exceptional specialties; the sale of one of them reached over 1,000 during the last six months. He must be prepared to invest at least £300, in return for which he may join the directorate. Address, giving references, &c., to P. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

AS manager of Branch; well recommended; aged 26. Chemist, Lavenham, Suffolk.

PART or Whole Time; aged 25. "Statin," 22 Charlotte Street, Landport, Hants.

JUNIOR or Dispenser; London or suburbs. "Statin," 11 Green's End, Woolwich, S.E.

DISPENSER; qualified; aged 29; married. "Chemist," 17 Pomona Place, Fulham, S.W.

ALLEN PEARCE, Bristol, is open for a first-class commission for Bristol and South Wales.

AS Assistant; aged 22; 7 years' experience; good references. J. S., 27 Walnut Street, Leicester.

OUTDOOR Branch; Minor; large experience; tall; 31. F., 113 Riversdale Road, Highbury, N.

AS Assistant, with a good knowledge of Mechanical Dentistry. "Dens," care of Mr. Cutler, 2 Kelson Street, Kilburn.

OUTDOOR Assistant (London); good experience; Hall qualification. E. T. H., 10 Stafford Street, Lisson Grove, N.W.

AS Junior; aged 20; 4 years' experience; height 5 ft. 7 in.; good references. A. J. Bellamy, Meteor Street, Cardiff.

ASSISTANT, Light Retail and Dispensing, or Dispenser to Surgeon; 6 years' experience. "Beta," 47 High Street, Newport, I.W.

JUNIOR; 4 years' experience; unexceptionable references. Apply, F. Major, care of J. Wallis, 13 Gilbert Road, Kennington Road, S.E.

AS JUNIOR, aged 19; height 6 ft.; 4 years' experience in good-class dispensing and retail. Harper, Cheshire Street, Market Drayton.

OUTDOORS, London.—Experienced Assistant; aged 32; good dispenser and bookkeeper; fluent French. D., Rosebank Cottage, Linkfield Lane, Redhill.

A CHEMIST wishes to place his son, aged 19 years, who has been 3 years in the business, with a good firm as Junior. "Galen," Southall's, Birmingham.

WANTED, seaside employment, chiefly sitting down, by experienced registered Chemist; very small remuneration. "Alpha," 111 Chorlton Road, Manchester.

WANTED, an engagement abroad; varied experience in all Branches; India or Australia preferred; total abstainer; aged 30. "Borax," 2 Floyd Road, Manor Park, Essex.

TRAVELLER, or as part time traveller; engagement wanted by one who has good knowledge of drugs, &c., and is well calculated to succeed. G. C., 18 Dryden Street, Nottingham.

IRISH AGENCY.—Commercial man, well known, resident in Dublin; would undertake representation of first-class English Manufacturer; long experience in leading Sundry Houses; influential connections among Chemists, Grocers, Olives, &c.; London reference; security. "Agent," care of Mr. West, 13 College Green, Dublin.

AS Manager; London preferred; aged 26; qualified; advertiser is single, an abstainer, and has had experience. Thoroughly good references. W. H., The Laurels, Hangerford, Berks.

WANTED to place a youth who has passed the Preliminary with a Chemist in London, W. preferred, either as an out-door Apprentice or Pupil. Write, stating particulars, to "Omega," care of Messrs. J. Radmal & Sons, 2 Bishopsgate Street, Without.

LABORATORY.—Pharmaceutical Chemist, who has been many years engaged in a first class Laboratory, seeks a situation as Manager or otherwise; excellent references, and character stand strict investigation. No. 999, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

PERSONS wishing to Purchase or Sell their Businesses will do well to communicate with Messrs. Fowler & Miller, Chemists' Transfer Agency for the North of England, 60 Fawcett Street, Sunderland.

DUTCH EMBROCATION for Hooping Cough. Price, 1s. 1½d. and 1s. 9d. per Bottle. Wholesale, Messrs. Barclay & Sons and Newbery & Sons. Any Chemist or Medicine Vendor wishing to try its efficacy will receive a bottle free of charge by applying to the Patentee, P. F. Vandersteen, "The Bird in Hand," Braintree, Essex.

DENTISTRY.—First-class Mechanical work undertaken for the Profession at moderate terms; good West-end references as to ability, &c.; punctuality guaranteed. W. E. Hill, 220 High Holborn, W.C.

PRELIMINARY AND MINOR.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. **MINOR**.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

GLYCERINE & CUCUMBER,

First Quality, 9d. per lb., by using

Rouse's Concentrated Cucumber Paste.

In Jars (free), ½ lb. 2s. 3d.; 1 lb. 4s. 3d. net. Making 3 lbs. and 6 lbs., costing ½d. per oz., by simply adding Water and Glycerine.

Thro' any Wholesale House; or post free for P.O.

ROUSE & CO., 12 WIGMORE ST., LONDON, W.

OUR WEEKLY SUPPLEMENT.

We have prepared a set of forms for small advertisements (assistants wanted, businesses for disposal, exchange column &c.). With these are attached tables of useful reference matter (Sale of Poisons, Postal Information, Annual Licences, Metric Weights, Measures, Medicine Stamps, Law and Public Offices, &c.). We shall be glad to send one of these sets to any subscriber who will send us an addressed postal wrapper (bearing a halfpenny stamp). As the object of this production is to encourage the insertion of such advertisements as we have named in THE CHEMIST AND DRUGGIST, we hope this offer will be taken advantage of chiefly by those subscribers who are willing to use this journal whenever opportunities occur.

OFFICES: 42 CANNON STREET, LONDON, E.C.

monium hydrate and chloride to the original solution is a reaction we were unable to obtain. Your confirmatory test for aluminium was in reality the ordinary test for cobalt. The addition of cobalt chloride to a white infusible mass on charcoal and the subsequent ignition of the mass is a very different matter.

LAPIS LAZULI.—It is true the silver nitrate precipitate was soluble in ammonia, but you do not state that it was insoluble in nitric acid, as it ought to have been if it consisted of silver chloride.

A. M. S.—The solution of the mixture did not give a precipitate with ammonium molybdate; it did not even give a yellow coloration. If you had made a systematic examination for all the acid radicals you could scarcely have failed to detect the borate, which constituted such a large part of the mixture.

Metropolitan Reports.

CHEMISTS' ASSISTANTS' ASSOCIATION.—The meeting on January 16 will be devoted to short papers. Amongst them are included:—"Maceration-Nychthemeron Process," by Joseph Ince, F.L.S.; "A Country Walk, December 25, 1889," by W. A. Salter; and "Favourite Influenza Remedies," by F. Ashley Rogers.

MESSRS. BURROUGHS, WELLCOME & Co. and their Dartford employés had a gay time last Saturday. In the afternoon the large room where their specialities are put up was cleared for a concert, for which a Welsh choral party was engaged. Their performances and a few other voluntaries were much enjoyed. Then followed a substantial tea, and dancing afterwards made the evening pass merrily. One of the events of the occasion was the presentation to the principals by Mr. Coleman, on behalf of the Dartford staff, of a very cordial and numerous signed address expressing the appreciation of the employés of the many efforts made by the firm for their welfare. This address was artistically illuminated and handsomely framed. Mr. S. M. Burroughs and Mr. H. S. Wellcome both acknowledged the presentation in suitable speeches.

SEWAGE DEODORISATION.—At the weekly meeting of the London County Council, held at the Guildhall on Tuesday afternoon, Lord Rosebery in the chair, the Main Drainage Committee reported that they had received a report from the chemist stating that the quantity of manganate which would be required for the purpose of sewage deodorisation during the five months from May to September inclusive, at the rate of 3 grains per gallon, was 15 tons per day for 150 days, or 2,250 tons, leaving, after taking into account the quantity now in stock, about 2,000 tons to be provided. The committee recommended that an advertisement be at once issued, inviting tenders for the supply of this quantity. The recommendation was adopted.

THE APPOINTMENT OF A DISPENSER.—At the usual weekly meeting of the guardians of the Strand Union, held on Tuesday at the offices, Henrietta Street, Covent Garden, Mr. T. Hill presiding, five candidates came before the Board on the recommendation of the Dispensing Committee for the post of dispenser to the Board. Before the election was proceeded with, Mrs. Evans desired to call the attention of the Board to a resolution passed in February last that no person should take a contract of the Board who had any relation amongst the guardians. One of the candidates, she said, a Mr. Hobbs, was the son of one of the vice-chairmen of the Board, and she moved a resolution disallowing his candidature. The chairman said the resolution referred to by Mrs. Evans had nothing to do with the appointment of a dispenser. It referred to contracts for goods, &c. An angry discussion followed, but Mrs. Evans's motion was rejected. Ultimately Mr. Hobbs was duly elected, and expressed his thanks for the position the Board had placed him in.

THE HOLBORN GUARDIANS AND THEIR DISTRICT MEDICAL OFFICERS.—The Holborn Board of Guardians at their meeting on Wednesday at the offices, Clerkenwell Road, had under discussion two letters which had been received from Drs. Price and Hollis, district medical officers. The guardians had previously decided that they would not recognise any assistants the district medical officers might employ unless they were properly qualified; and the gentlemen in question wrote in effect that if the guardians did not

accept the assistants they (the doctors) provided the guardians would have to provide and pay qualified men as out of their emoluments they could not afford to pay 5*l.* per week for an assistant. The guardians took these letters as somewhat insubordinate, and, on the motion of Mr. Boulton, the correspondence was ordered to be sent to the Local Government Board. There was also a discussion as to making these district medical officerships annual appointments; and Mr. Dixie advocated a cutting down in numbers of officers and an enlargement of districts, but this latter was not favoured by the Board.

CLAIM FOR CAMPHOR CASKS.—In the City of London Court on Monday, before Mr. Registrar Wild, Mr. Percy Gilling, of 3 Catherine Court, Seething Lane, E.C., sued Messrs. C. Gross & Co., chemists, of 9 Mincing Lane, E.C., for the price of constructing two camphor casks to the order of the defendants. Plaintiff said he obtained an order from Mr. Gross to make the casks in question, together with some smaller casks, which were not in dispute. He had made the casks, which had been delivered, but the defendant had disputed the amount, and refused to pay for them. Mr. Gross, the defendant, said the plaintiff came to his warehouse and took the dimensions of the casks, and after that had been done he (Mr. Gross) asked the plaintiff what would be the price of the casks, and the plaintiff said they would be 3*s.* each, which he was prepared to pay, as that was the contract. The plaintiff denied that any such agreement was ever made, and further said the material in each cask cost him more than 3*s.*, besides which there was the cost of labour, which was 1*s.* 6*d.* per cask. The defendant called a witness, who said he was present, and heard the agreement to make the casks for 3*s.* each. The Registrar said he thought there had been a mistake, and that in all probability the agreement referred to applied to the smaller casks, and not to the ones in dispute. Therefore he must find for the plaintiff. Judgment accordingly.

DR. BERNAYS MAGNIFIES HIS OFFICE.—At the usual fortnightly meeting of the Camberwell Vestry Dr. Bernays presented his quarterly report, in which he again drew particular attention to the qualities of condensed milk. Some of the samples, he said, which had recently come under his notice, were of fair quality, while others were absolutely unfitted to be given to young children. There was no doubt that children might be starved if fed on some of the inferior condensed milk according to the directions given on the labels, although in the case of older people the article might have its uses of nutrition. Since the vestry had taken up the question several "brands" had been altered in regard to the labels, and the fact that the article was a "skim" was not disputed. As a rule condensed milks would not admit of dilution to the extent recommended and still be fitting as a food for the young. A tremendous amount of adulteration was going on at the present time, and it was only by unflagging energy on the part of analysts that the injustice to the public could be put a stop to. Of five samples of so-called butter which had been subjected to examination four were composed of fat, with a flavouring of butter. Sweets required carefully watching, as in the case of some sugared almonds the almonds were composed of a mixture of gum and sugar, and the colouring matter was of a somewhat curious nature, and difficult to identify. Samples of spirits had also been tested, but were all found to be according to standard and of fair quality. In concluding his report the doctor observed that it was a matter for regret that the public did not take greater advantage of the Act which was provided for their welfare. Had they taken as much interest in the matter as the Camberwell Vestry had done the Act would by this time have been self-supporting.

A TRAVELLER'S CLAIM.—In the Lord Mayor's Court on Monday, before the Assistant Judge (Mr. Roxburgh) and a jury, an action, "Grossmith v. Jacobs, sen.," was tried. The plaintiffs, Messrs. Grossmith & Son, perfumers' and druggists' sundriesmen, of Newgate Street, sued the defendant, who had formerly been a traveller in their employ, to recover 7*l.* 3*s.* 1*d.*, balance overpaid to him on account of commission whilst travelling for them. The defendant set up a counter-claim for 13*l.* 16*s.* 11*d.* on an agreement which he alleged had been entered into between himself and the plaintiffs. Upon the state of the pleadings the onus and proof lay upon the defendant, and consequently he gave

evidence first. He said that he entered into the service of the plaintiffs on the understanding that he was to have 15 per cent. on all orders, but there was to be a minimum remuneration of 2*l.* per week. He asked Mr. Grossmith about his expenses, and it was arranged that he should have 15*s.* per day. He went on his journey round the western and midland counties, and from time to time he received moneys on account. Altogether he had received 34*l.* as commission and expenses, whereas he was really entitled to 47*l.* 1*s.* 11*d.* He parted from the plaintiffs because he wanted a regular salary, and the plaintiffs replied that all their representatives were paid by results. Mr. Grossmith, one of the plaintiffs, denied that he arranged that defendant should have his expenses paid. He was allowed a larger commission than usual, because the ground over which he was travelling was new. The total to which the defendant was really entitled was 31*l.* 16*s.* 11*d.*, and he had really received 39*l.* From some correspondence in the course of the case it appeared that the defendant had originally made out his account, showing that the plaintiffs owed him 2*s.* 7*d.* only, and acting on this the jury found for the defendant for 2*s.* 7*d.*

THE CHEMISTS' BALL which came off on Wednesday evening was the twenty-fourth annual event of the kind which we have recorded. This one, like several of its predecessors, was held at the Portman Rooms, Baker Street, and terpsichorean authorities speak highly of the suitability of this establishment. The arrangements were again entrusted to Mr. W. H. Francis as honorary secretary, who managed everything to perfection. The attendance this year had fallen to 170, exactly forty-one less than last year, and not much over half what has been reached. But it was stated that a fair proportion of expected attendants were enjoying themselves with influenza instead. It was noticeable that there was more than a sprinkling of the sterner sex who might be ranked as outsiders. Amongst those who were present were Messrs. G. R. Barclay, S. M. Burroughs, T. H. Francis, A. W. Gerrard, W. F. Gulliver, C. W. Martin, Wm. Martindale, T. H. Williams, Michael Carteghe (chairman), R. Bremridge, J. W. Bowen, W. H. Kerr, P. C. Maitland, J. D. Marshall, T. C. W. Martin, A. H. Mason, H. A. Thomas, W. H. Francis (honorary secretary), Henry Walker, — Attfield, jr., M.B., and W. H. Symons. Mr. Carteghe, in proposing "The Chemists' Ball," found a topic which fitted his fancy in the influenza, and, after felicitous compliments to the ladies, told the gathering how matters are going on at the West-end at present; chemists have been working up to 12 o'clock midnight, and many of them—as the absence of familiar faces showed—had succumbed to the force they were combating. One assistant of his acquaintance had, at least he said when he returned to business that he had, had the donkey fever. This diversion of the *dengue* created roars of laughter. Up to this point the evening had passed swimmingly, those who danced seeming to enjoy their work heartily as they whirled to the strains of Dan Godfrey's band, and under the expert conductorship of Mr. T. C. W. Martin, who loses not a whit of his energy as an M.C. After supper dancing was resumed, and was kept up with much spirit until an early hour.

CONRADY reports to *Pharm. Zeit.* that he has found an "Extract. fluid. cascar. sagr." in the German market, which turned out to be a fluid extract of black alder strengthened with aloes.

AN American firm of capsule-makers have got a new machine for making these useful aids to medication. It is stated that it has four iron plates, each of which, bearing from 200 to 250 olives, is dipped automatically into the gelatine, and sent rolling down a track to the cutter, which automatically cuts off the waste. Without the help of a hand these plates roll into an elevator and are hoisted to another track, which rolls them back to the place they started from after being cleaned. Here they are pulled off the pins by machinery and dropped into the bins. The whole process requires but a short time, the greater part of which is consumed in the drying. The machine does the work of about 175 people!

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BIRMINGHAM.

ALLEGED HOSPITAL ABUSE.—A conference of the representatives of medical and other charities and medical practitioners of the city was held on Wednesday afternoon in the council-house, under the presidency of the Mayor (Councillor Clayton), to consider the question of hospital abuse in Birmingham. After a debate extending over nearly three hours, a resolution was adopted that a committee, selected by the Mayor, should be appointed to consider the question, and report to a future meeting of the conference.

THE ACTIONS BY THE APOTHECARIES' SOCIETY.—In the County Court on Monday, before his Honour Judge Chalmers, two of the prosecutions recently instituted under the Apothecaries' Act, 1815, were heard. The first defendant was William Welch, 9 Hurst Street, who had traded as J. & W. May & Co. Dr. Rogers appeared for the plaintiffs, and Mr. Eardley for the defence. After Dr. Rogers had briefly opened the case, Detective-sergeant Thomas, who visited the defendant's premises on August 2, said on the inner door of the shop was "May & Co., herbalists." In the window there were several bottles labelled "May's Herbal Specific." He visited the shop again on Saturday last, and found in the window the same bottles as on the occasion of his visit in August. When he visited the shop in August he saw a man to whom he said that he was unwell. Witness asked him if he was a doctor, and the man said, "I'm not a doctor, but I'm the man who prescribes." He recognised the defendant as the man. Witness told him that he felt nervous and out of sorts, and had a sick headache and shortness of breath. He said he would supply him with some medicine, but that it would take him some hours to mix, and that it would be the same as was supplied by him at the Skin and Lock Hospital. Witness was about to leave the shop by the front door, when defendant called him back and said, "Come this way," and he let him out through the back door. Witness went again on August 3, and saw the same man. He took him into a small inner room, and told him he would give him a medicine for which he would charge him 5*s.* for the first bottle, and 2*s.* 6*d.* for each subsequent bottle. The man went behind a partition to mix the medicine, and witness heard him shaking liquid in a bottle. The defendant said to him, "You had better pay me a sum for the cure. We do that with our patients—generally 5*l.*, according to the case." Witness preferred to try a bottle of the medicine first, paid the 5*s.*, and left again by the back door. When he got outside he examined the bottle, and found that it had a patent-medicine stamp upon it. He did not drink any of the medicine. On the occasion of another visit the defendant asked him if he was any better, and he replied that he was not much better in health, but that his appetite was improving. Defendant then said, "That was a tonic I gave you." He again suggested a lump sum for a cure, but witness said he would try another bottle, and he was supplied with one, for which he paid 2*s.* 6*d.* This bottle also bore an Inland Revenue stamp. Dr. Rogers having completed his case, Mr. Eardley submitted that nothing illegal had been disclosed. Under 34 & 35 Henry VIII. authority was given to herbalists to make and vend medicines, and under an Act of George III. anyone might make and vend medicines under the Stamp Act. The bottles produced were stamped, and the defendant could prove himself to be a herbalist, as the notices in his window professed. His Honour said he would make a note of Mr. Eardley's objection. The question for consideration was whether defendant had contravened the Apothecaries Act. Thomas was cross-examined by Mr. Eardley, and, in reply to his questions, said he had not undertaken the present case in the interests of private practitioners, but because he had been instructed to do so. He hoped to get 10*l.* out of the case. He was not suffering in the way he described to the de-

feudant. Mr. Eardley: It was a lie, then? What distinction do you make between a lie and the truth? You don't mind lying unless you are on your oath? Witness: Yes, I do. If a lie would serve your purpose you would never tell the truth? I might tell a little lie, of course, if it served a good purpose. And you think that is worthy of the police? Yes; I think we have done the public a service in these cases. Are you instructed to entrap citizens? I was in this case. If you are going to adopt functions which are not yours, that explains the necessity for the increase in the police force? No; this did not take very long. It was a labour of love? Certainly not. You know that other people sell medicine under a stamp licence. Why should you make a victim of this man? I was instructed. Was it not because he was a wretchedly poor man? No; it was not. You have nothing to show that this man was not a herbalist? No.

Detective-sergeant Blizzard corroborated Thomas's evidence as to the notices in the shop-window.

Mr. Eardley said his client was entitled to sell a tonic under the Stamp Act. He had not prescribed. The police officer went into the shop and asked for a certain specific for his debility, and he got the specific asked for. There was no advising on the part of the defendant. He put in a licence entitling defendant to sell patent medicines, and said no one had disputed that he was a herbalist. The defendant was put in the box, and stated that he was a herbalist. He sold herbs, pills, a blood specific, and one or two medicines in accordance with the placards placed in his window. Cross-examined: He had not a certificate of the Society of Apothecaries. The licence to sell medicine was the only one he held. He did not profess to be an apothecary or a general practitioner.

His Honour said the question was whether the defendant had acted as a herbalist, and, if not, whether he came within the Apothecaries Act.

Dr. Rogers said the licence did no more than authorise the sale of patent medicines, and did not help the defendant in the least. His Honour reserved judgment until Wednesday.

A second action was against Jesse Keay, 97 Hill Street, trading as "Curtis & Co." Dr. Rogers appeared for the Apothecaries' Society, and Mr. Ryland Crooke for the defendant. In this case Detective-sergeant Blizzard had been the professed patient, and the defendant, who, he said, pretended to be Dr. Curtis, had given him two tablespoonfuls of the mixture he made for him to drink in the room. He (witness) thought it possible the defendant suspected him. For the defence, the defendant denied mixing any medicine. It was already mixed, and was prepared from herbs. He believed Blizzard's face was powdered when he first visited him, and that he had had his tongue painted with iodine. He had never represented himself as a doctor. In reply to his Honour, the defendant said he had never been fined in the Birmingham County Court in connection with proceedings under the Apothecaries Act. In this case also judgment was reserved until Wednesday.

On Wednesday his Honour delivered judgment. With regard to West, he said there was no dispute as to the facts. He accepted Detective Thomas's evidence as correct, but had reserved his decision to consider the question of law which had been raised. The substantial point in these questions was whether the defendant was practising as an apothecary, and not as a herbalist, who was permitted to practise under an old Act. It was an absurd anomaly that in the nineteenth century the beneficial and necessary monopoly of a great scientific profession like medicine should be limited by an Act 350 years old, which began by a recital concerning a sorcerer's witchcraft and other inconveniences, and which was passed when surgeons and barbers were of the same calling. But so it was. It was never, however, intended that herbalists should treat and prescribe for obscure diseases, such as nervous debility, when the symptoms were mainly subjective. The Stamp Act licence to sell medicines clearly did not cover the present case. Speaking broadly, the cases covered by those Acts were those in which the patient treated himself, relying on his own judgment, and not those where treatment and medicine were procured by the person dispensing the medicine. He gave judgment for the plaintiffs for the penalty of 20% claimed, and stayed execution for fourteen days, with leave to defendant to appeal. The case was still stronger against Jesse Keay, who had palmed himself off as a medical man. He would give judg-

ment against him for the two penalties of 20% which the plaintiffs claimed. He gave leave to appeal in this case also.

CONGLETON.

DANGEROUS CHEWING GUM.—An inquest was held here on Tuesday respecting the death of a child, which was supposed to be due to "American chewing gum." It was proved that the gum contained a large proportion of oil of peppermint, which, it was thought probable, was the cause of death. A post-mortem examination showed that the stomach and intestines were inflamed, some parts intensely so, but otherwise the organs were healthy. The contents of the stomach were ordered to be sent for analysis, and the inquiry is adjourned *sine die*.

LINCOLN.

ILLEGAL SALE OF POISON.—At the Kesteven Petty Sessions, held at the Castle, Lincoln, on the 10th inst, before Mr. G. E. Jarvis and Mr. C. C. Sibthorpe, Francis Reast, a shopkeeper of Metherringham, was summoned for having sold to James Brown 3 oz. of arsenic without a labelled wrapper hearing the name and address of the seller. Mr. C. Scorer, solicitor to the Horse Poisoning Prevention Association, conducted the prosecution, and explained that defendant sold the goods without being a registered chemist and druggist. James Brown, farm servant, stated that by the instruction of Sergeant Vickers he went to the shop of the defendant and asked for a pound of arsenic. The defendant said he had only 3½ oz. in stock, and sold to Brown 3 oz. Brown took the arsenic to Sergeant Vickers, who returned to the shop and asked defendant whether he had sold the arsenic to Brown. Defendant replied that he had, and said that he (Brown) had paid 4d. for it. Sergeant Vickers then asked defendant whether he was agent for Battle & Maltby, whose name was on the wrapper. Defendant replied in the negative, and said that he sold the arsenic on his own account. The defendant then admitted that he was not on the register as a qualified chemist and druggist this year, but said that he was ignorant of the law that required him to put his name and address on the wrapper. Mr. Scorer intimated that an action in the County Court was pending against defendant by the Pharmaceutical Society for having acted as a chemist and druggist without being on the register, the liability in respect of which was 5%. The Chairman animadverted on the seriousness of the offence, and said it was through men like him who went about the country selling arsenic to young farm servants that so much damage was done. He could only say that they had taken into consideration that there was another case pending against him, and if it were not for that he (Mr. Jarvis) would have been in favour of inflicting the full penalty of 5%. He would, however, be fined 3%, including costs.

LIVERPOOL.

GUARANA.—There has been some inquiry for this article on the Liverpool market of late. Holders, however, confirm our paragraph in the market report of last week as to the higher prices ruling in the States, and, further, that it pays better to grind and return it to Brazil, where there is a large demand, rather than sell in this country at present prices.

PHARMACEUTICAL STUDENTS' ASSOCIATION.—At the meeting held on January 9 there was a smaller attendance than usual, due probably to the Associated Soirée, which was held on the previous evening, dividing the interest of the members. After some discussion it was agreed to defer the reading of the paper on "Glyco-gelatine," by Mr. Wokes, until the next meeting—a fortnight later.

INFLUENZA EPIDEMIC.—Although there are now a number of well-marked cases, there is no rapid spread of the malady here. One medical man, who refused to believe in its existence as anything special, has now seven or eight cases under his care. The symptoms are not merely those of ordinary influenza intensified, but there are special features which leave no doubt of its peculiar nature.

ASSOCIATED SOIRÉE.—This gathering, which is supposed

to represent the combined efforts of the literary, scientific, and art societies of Liverpool, was held on January 8. The exhibits were scarcely up to the usual standard, and the attendance was decidedly less than the previous average. This latter was not altogether a disadvantage, for it is usually much too crowded to be comfortable. There were exhibited some thirty-five popular objects under as many microscopes, partly contributed by the Chester Society of Natural Science. The other objects of interest to chemists were the ancient books exhibited by Dr. Brown and Mr. Watt; electric and magnetic appliances by Messrs. Robinson & Co., Sax, and others; minerals, models, and photographs by the Liverpool Geological Association and the Geological Society; and some chemical and philosophical apparatus by Symes & Co. The lecture of the evening was on "The Science of Animal Locomotion," by Mr. Eadward Maybridge, of the University of Pennsylvania. There were some other popular lectures with lantern illustrations, and some good music and singing.

MANCHESTER.

"EXTRAORDINARY BARGAINS."—Lewis's are busy at present with a great sale of surplus stock, including, according to the price-list, a considerable assortment of perfumery, patent medicines, toilet requisites, &c. Prominence is given to Sequah's oil and prairie flower—"regular price, 2s.; Lewis's price, 1s. 9½d."

MANCHESTER PHARMACEUTICAL ASSOCIATION.—Contrary to custom, no paper was read at the monthly meeting of this association, held on Wednesday, January 8, at the Victoria Hotel. The proceedings were, for the most part, of a social character; but in the course of the evening one or two subjects of pharmaceutical interest were briefly discussed, including the proposed new Pharmacy Bill, and a suggestion that in future a gentleman from this district should be nominated for election to the Council of the Pharmaceutical Society. The committee appointed at the last meeting to make arrangements for a social gathering to be held in February recommended that a supper, invitations for which should be issued to all the registered members of the trade in the district, should be held on the night of February 4 at the Spread Eagle Hotel, the charge for tickets to be 3s. 6d. each. The committee's recommendations were adopted. Mr. F. Baden Benger presided over the meeting.

SHEFFIELD.

SCHOOL OF PHARMACY.—The classes commenced again last week. We hear rumours of an opposition school being started on a similar scale by a recently qualified pharmaceutical chemist, who until now has contented himself with "coaching." If private enterprise is of any value it ought to flourish here, for the ground has been well prepared.

TAKING THE BULL BY THE HORNS.—If the fashionable epidemic should come this way it is likely to have a warm time of it. All the pharmacists in the centre of the town show by their windows and bills that they intend making some capital out of it. The influenza, however, does not come. There is a good crop of colds and congestions, but not a single case of the genuine Russian article.

GROCER'S PAREGORIC.—Alfred Stringer, grocer, Ecclesfield, was charged at the Town Hall on Tuesday with selling paregoric which was not of the quality demanded. Mr. Superintendent Midgeley stated that on the 15th ult. a boy purchased 2 ozs. of what was labelled paregoric. The defendant had no right to sell paregoric under the Pharmacy Act, and so, to avoid this, he sold an article which was not genuine. He charged the same price for it, and thus gulled the public. The alleged paregoric purchased at the defendant's shop was sent to Mr. Allen, the public analyst, and that gentleman had certified that the sample sent to him was entirely destitute of opium, which was a most important constituent of paregoric elixir. Evidence was called bearing out Mr. Midgeley's statement. The defendant admitted that the liquid sold was not real paregoric, but was a substitute. The magistrates believed that the defendant sold the substitute as paregoric, and had thus misled the public. He would be fined 20s., including costs.

THE EXPERTS AGAIN.—It is a very simple matter for a chemist to convince his pupils that an acid may be neutralised by an alkali, in virtue of which it loses its metal-dissolving power. It seems, however, a much more difficult matter for an "expert" to convince a brother "expert" that such is the case. The battle which was fought before a select committee of the House of Lords some two years since on the plumbo-solvent power of Sheffield water and its remedy is now raging more fiercely than ever. A well-written series of articles in the *Independent* seems to have had the effect of stirring up the Water Committee, the result of which has been a report by their engineer, who is a disciple of Dr. Tidy, and evidently committed to his theory that deficiency in silica is the cause of plumbo-solvent power. In spite of this, however, he recommends the expenditure of 2,000l. on limestone and flint filter-beds, and in the meantime the neutralisation of the water with sodium carbonate. The late medical officer of health (Dr. White) has written a long letter to the papers, showing the inconsistencies of the report, and exposing the change which has taken place in Mr. Eaton's opinions since the House of Lords fight. Dr. White and Mr. A. H. Allen have stuck to the "acid" theory, and it seems likely to prove the correct one, for it has been shown, on Dr. Tidy's own analysis, that the lead-dissolving water contains more silica than that from another source, which has no action on lead. Mr. Allen has, however, been ignored by the Corporation, because some of the members object to him publishing his opinions in letters to the local papers. They have therefore decided to consult an outside chemist. Meanwhile "plumbism" furnishes plenty of work for the doctors, and the filter trade flourishes.

ST. HELENS.

MR. BEECHAM AND THE ST. HELENS CORPORATION.—When Mr. Thomas Beecham erected his palatial pill factory in Westfield Street, St. Helens, he obtained the sanction of the local Corporation to erect two large lamps in front of the principal entrance of the works. At the last meeting of the Highways Committee it was reported that Mr. Beecham did not cause the lamps to be lit at night according to agreement, and that they were an obstruction in consequence. The town-clerk was instructed to write to Mr. Beecham on the matter. At the meeting of the committee on Wednesday it was stated by the deputy town-clerk (Mr. W. J. Jeeves) that these instructions had been carried out. Mr. Joseph Beecham, a member of that Council, had promised to personally attend before the committee, but he had not done so, and no reply had been received. Councillor Hatton understood that it would cost 150l. a year to light the lamps by electricity. It was decided to postpone the matter pending a reply from Mr. Beecham.

WORTHING.

"Now is the winter of our discontent made glorious summer by this Influenza." Worthing is paying the penalty for its direct connection with London by having an early visit from *la grippe*. Although there seem to be few really serious cases, yet the rapid spread of the epidemic has induced a very general investment in prophylactics; and quinine in all forms, carbolic vaporisers, and general tonics are having "a good innings." While the local doctors have suffered rather severely, the chemists seem to have kept quite free from the complaint. The consciousness of doing a good work, of bravely battling with an insidious disease (further detail on application), has doubtless done much to render the latter unsuitable resting-places for the prowling bacteria. This conclusion is forcibly impressed upon anyone who gazes at the face of a Worthing pharmacist, all aglow with an honest pride in his noble work, and notes how the weariness, which he might reasonably have expected to find there, is completely effaced by this consummate glee.

IRELAND.

THE CHAIR OF MATERIA MEDICA at the Royal University, Dublin, is announced to be now occupied by Professor Whitla, vice Dr. J. S. Reid, Belfast.

"INFLUENZICUM" is the title evolved from the genius of an enterprising Dublin druggist.

PHARMACEUTICAL SOCIETY OF IRELAND.—JANUARY EXAMINATIONS.—Preliminary:—Messrs. Gillespie, Deans, O'Riordan, Foster, McSwiney, Weir, and Cleland passed. Five failed. Licence:—Messrs. Agnew, O'Connell, MacKillip, Ewen, Irvine, and Williams passed. Five failed.

THE BELFAST AERATED WATER TRADE.—From some interesting statistics just published at Belfast, the total of medicinal and aerated waters turned out yearly is estimated at 50,000,000 of bottles.

CONTRACTS.—Tenders for a year's supply of drugs, medicines, and druggists' sundries, as per list supplied on application, are invited by the Trustees of the North Charitable Infirmary, Cork.

THE USUAL MONTHLY MEETING of the Dublin branch of the Irish Pharmaceutical Chemists' Association, due to meet on Wednesday evening, has been postponed. Notices convening the next session will be issued by the hon. secretary.

THE SIMPLES AND DRUGS OF INDIA.—On Monday last, at the Royal Irish Academy, Dublin, Mr. Valentine Ball, Director of the Science and Art Museum, read a commentary on the colloquies of Garcia De Orta on the simples and drugs of India.

MORE CUTTING TALKED OF.—It is rumoured that the extensive premises in Thomas Street, lately occupied by Messrs. Fay & Co., are about to be re-opened by a company of American apothecaries and druggists, who, it is said, will "run" the concern on cash principles and minimum profits.

THE "GREAT SNEEZE" has come "as a boon and a blessing" to a small army of itinerant vendors of "certain remedies" who are thronging the streets of Dublin, got up in fantastic manner, and retailing for the modest *denarius* a number of specifics, the most notable being camphor blocks and doses of quinine.

HE GOT A NEW YEAR'S GIFT INSTEAD.—For unlawfully assaulting a Kanturk druggist and general merchant named James Keffe, who refused to give prisoner a Christmas-box, a man named Kendall has been sentenced to two months' imprisonment with hard labour, at the expiration of which to find bail to keep the peace for twelve months.

THE APOTHECARIES' SOCIETY.—The official directory for 1890, issued last week at Dublin, publishes the revised Court of directors and examiners of the Apothecaries' Hall of Ireland. Messrs. Arthur Harvey and Charles Holmes have retired from the Council, their places being filled by Messrs. Robert J. Montgomery and Michael J. Moore. Mr. Richard G. O'Flaherty succeeds Dr. George West as Deputy Governor; the latter, however, taking a place upon the Council in room of Mr. O'Flaherty. Mr. William Jerrod succeeds Mr. William Webb as general manager of the Hall, the School of Pharmacy being under the charge of Mr. R. J. Montgomery, L.A.H.

THE QUEEN'S PETS.—In the City Council last week, in the course of a discussion referring to a possible visit to Dublin of Her Majesty, Sir George Owens, apothecary, M.P.S.I., justified his loyalty by assuring his colleagues that he had been asked by the Queen to write his autograph in her private album. Sir Henry Cochrane capped the assertion by stating that he had been permitted to insert his signature in that book twice. The Irish newspapers have waxed facetious about this episode, and have sacrilegiously published facsimiles of these royalty-sought autographs.

PROFESSIONAL CHANGES.—Owing to the recent amalgamation with the R.C.S.I., Dublin, of the Carmichael and Ledwich Schools of Medicine some important changes in the examining body are notified, chief among them being the merging of the triple chairs of *Materia Medica* into two, now occupied by Professors Macnamara and Duffy, to the exclusion of Dr. R. D. Purefoy (Ledwich). In like manner the chairs of Chemistry are at present held by Sir Charles Cameron and Professor Lapper; the Botany and Zoology departments being under the charge of Professors Menchin and Cosgrave, Dr. Robinson, late demonstrator to the Ledwich school, being absent from the list just published.

PHARMACEUTICAL CHANGES.—Mr. E. G. Lincoln, Wansborough, M.P.S. of Great Britain, has resigned his position at the Pharmacy, Upper Baginbun Street, Dublin, to accept a post in a leading London house. Mr. Richard Baugh, A.P.S. Great Britain, resigns the departmental managership in Messrs. Hamilton Long & Co.'s pharmacy, in order to prosecute his medical studies. Mr. D. Tait, L.P.S.I., has resigned the managership of Johnston and Oldham's Medical Hall, Dublin, and has embarked for Massachusetts to take up a similar position in a Boston pharmacy. Mr. Wilson Curham, late sub-manager at Messrs. Curham, pharmaceutical chemists, Dublin, has obtained an important post in a Texas medical establishment.

BURNING OF A DRUG STORE.—At Lisburn, County Antrim, on Tuesday, a destructive fire broke out on the premises of Messrs. A. Boyd & Co., chemists and druggists, Cross Row, originating, it is stated, through a burning match falling accidentally into a petroleum receptacle. The flames spread rapidly, and, although but a few minutes elapsed before the fire brigade put in an appearance, the conflagration had gained such strength as to cause serious apprehension for the safety of the entire street. After four hours' hard work, the fire brigade, whose efforts were considerably hampered by the scarcity of water, succeeded in confining the fire to the burning house, which in a short time was completely demolished, a large quantity of stock being destroyed also. It is understood that the damage, which is considerable, is covered by insurance.

SCOTLAND.

DUNDEE.

INFLUENZA.—During the past week the influenza epidemic has made rapid strides in our midst, and both medical men and chemists are having a very lively time with it. It has made every chemist in the town very busy. One sold no less than 40 oz. of quinine last week, chiefly in the form of powders. *Aprpos* of cures for influenza, the following prescription, written by a local physician, was handed into a pharmacy in town to be dispensed. The dispenser indulged in a pipe before beginning operations:—

Ammon. carb.	3ij.
Sod. salicylatis	3iss.
Ammon. brom.	3ij.
„ chlor.	3ij.
Acid. nitro-hydrochlor. dil.	3ij.
Quinin. disulph.	gr. xij.
Spt. ammon. arom.	3ss.
Aq. cinnamomi ad	3vj.

M.

Sig.: 3ss. every hour.

The prescriber generally acts on the shot-gun principle, and knows it.

EDINBURGH.

THE examinations to be held here this month will occupy the Board five days.

MEDICAL STUDENTS AT THE UNIVERSITY.—During last year there were 2,025 students attending classes in the Faculty of Medicine at the University of Edinburgh, of whom 735, or over 36 per cent., were from England and Wales.

THE Electrical Exhibition, so far as progress has been made, promises to be a success. More space has been applied for than there is to allot. The buildings are well on the way already, and the Caledonian Railway Company are busy with a siding from their main line between Edinburgh and Glasgow into the exhibition.

THE EPIDEMIC OF INFLUENZA is the subject which most frequently crops up in course of conversation here at present. A great many people have been attacked by it. There appears reason to question its being the real Russian variety. Medical men are not all of one mind in this connection. One says he finds no difference in the symptoms from those of influenza cases which he has seen every winter. Another says the symptoms present unusual features. Whether the observation of the medical men or the peculiarity of the patients is accountable for the difference of opinion is not quite clear. The newspapers have been full of letters from

physicians and laymen in regard to remedies or preventives, and a great deal of promiscuous dosing has been the result. Pharmacists have been a little busier than usual in consequence. It takes a great many half-dozen of powders at 9d., however, to make much of a "pile" financially. The remedies most in fashion are phenacetin, antipyrin, salicylate of soda, and quinine in its various forms, the ammoniated tincture being, perhaps, most popular. For certain of the symptoms antipyrin appears to answer admirably, but the depression following its use, added to the depression naturally following the influenza, makes people feel low after a few doses. It should be very cautiously dealt with in supplying it to the public at any time, but particularly just now. One of the University medical professors advised his students to take as a prophylactic $\frac{1}{24}$ th of a grain of bichloride of mercury three times a day. It is generally supposed that a little bichloride never comes amiss to a medical student, so the professor was quite safe in his suggestion. The contagion is apparently introduced into the system by means of the air-passages, and it seems a roundabout way of using an antiseptic for the nose to send it *via* the alimentary canal. In certain quarters chemists are improving the occasion by advertising remedies both for cure and prevention.

GLASGOW.

ISCHIARHEUM is the polysyllabic name invented by a local chemist for his new rheumatic liniment.

INFLUENZA.—Medical opinion is divided as to whether the form of catarrh rife in Glasgow at present is or is not identical with *la grippe*. One of the evening papers, with a view of eliciting information on this point, postcarded all the doctors whose names appear in the Directory—some 400 in number. 119 replies were received, stating that, out of 2,370 cases treated, 1,660 might be described as of the Continental type, while the remaining 710 cases were ordinary influenza. With the exception of one death, resulting from pneumonia, and therefore only indirectly produced by influenza, no fatalities are recorded. The preponderance of opinion seems to be that this catarrh is of the normal indigenous type, although in a few cases, in which the patients have had postal communication with Russia, it is probable that they had contracted the true species. Naturally, the replies make little mention of remedial measures. A university professor recommends salicin; while one practitioner advises the use of "Ferocylate"—evidently a proprietary article—as a preventive. Meanwhile, the scare has created a brisk demand for menthol inhalers, fumigants, and antipyretics; and several city druggists who "took time by the forelock," and put up their own influenza specifics, have had their enterprise richly rewarded. Some newspaper men, who have given the public the benefit of their experience, concur in praising the virtues of whisky—either cold or hot—both as a preventive and curative agent; and a benevolent correspondent in a morning paper assures his readers that they need only go to the nearest druggists, get ac. carbol. 3ij., ol. eucalypti 3j., liq. ammon. fort. 3iss, mixed in a bottle, and sniff at this frequently, and they will be exempt from all danger. He adds, considerably, that the price should not exceed 6d. That the influenza boom is good for business is demonstrated by the increased returns in the majority of leading shops.

General and Provincial News.

LIEBIG'S EXTRACT OF MEAT COMPANY (LIMITED), have declared a half-yearly dividend at the rate of 5 per cent. per annum.

THE Maybrick Committee are to publish a pamphlet, in which they are to show that there were in Mr. Maybrick's house 400 bottles of different kinds of medicine.

MR. FRANK BAKER (38), a chemist to the Gas Residuals Products Company, was found dead in bed in his house at Bradshaw Street, Manchester, on Thursday morning. Death was due to suffocation.

RENEWING HIS YOUTH.—The veteran Dr. Brown-Séquard is recovering from an attack of whooping-cough, which

prostrated him for three months. This is surely not one of the results of the spermatie injections?

MRS. MARGARET SHEPHERD, 73 years of age, died at Liverpool last week through drinking ammonia from a bottle labelled "Jamaica Rum." A neighbour had lent some ammonia in the bottle for a grandchild of the deceased, who had a headache, to smell from, and the old lady drank from the bottle and died.

THE Philadelphia druggists have formed a limited company with a capital of \$3,500, the object being to enable the shareholders to buy their drugs and patent medicines direct from the manufacturers, so as to avoid purchasing from wholesale druggists who are members of the National Wholesale Drug Association.

MISTAKING THE MEDICINE.—The infant son of Dr. Digby Cotes, of Pentewan, Hampton Road, Teddington, being somewhat unwell, it had been intended to give him a dose of castor oil, a bottle of which was placed handy, ready for use. By mischance, however, the contents of another bottle, of similar shape and size, but containing a solution of strychnine, were administered by the mother, and though Dr. Cotes did all that was possible the child died within a few minutes.

CARBOLIC POISONING.—An inquest was held on January 3, at the Old Park Farm, Margam, near Swansea, touching the death of William Hussey, farm bailiff, and Thomas Davies, farm labourer, who died from the effects of drinking carbolic acid in mistake for beer. In our last issue we reported that it was sheep-dip the men drank, but it has since been ascertained that it was carbolic acid. After hearing the evidence of Dr. Davies, who attended the unfortunate men, and subsequently made a *post-mortem* examination, a verdict was returned that death was caused by their inadvertently drinking carbolic acid in mistake for beer.

THE BOTANICAL EDITOR HAD INFLUENZA.—Our contemporary—the *Family Doctor*—of last week amused those of its readers who had any acquaintance with *Materia Medica* by giving its most prominent page to an article on "the use of cocaine," illustrated with a large engraving of the coconut-tree—*Cocos Nucifera*. The reader, perhaps, wondered what the picture did there, but this was soon explained, for the article opened thus:—"Cocaine is a comparatively new drug; it is obtained from the leaves of the cocoa-tree, which is a genus belonging to the natural order of palms."

SWEET-TOOTHED RATS.—Frederick W. Place, chemist, Betley, sought to recover damages at Crewe County Court on Wednesday, from the London and North-Western Railway Company, in respect to the storage of some sugar. Two bags of sugar, weighing about 2 cwt., were sent from Liverpool to Betley Road for the plaintiff, and as the company does not undertake to deliver in Betley, plaintiff was informed of the sugar being waiting for him, but before his carter fetched it rats had eaten into the bags and several pounds of the sugar were spoilt. The stationmaster said that he had done everything he could to destroy the rats. But they came from the farms as fast as their predecessors were killed. His Honour reserved judgment.

CHEMISTS AND PRUSSIC ACID.—On Friday, January 10, Mr. Harry Alfred Moore, a well-known chemist and druggist, of Brierley Hill, was found dead in his bed, and, from appearances, it was conjectured that he had committed suicide. As stated below, Mr. Moore rose early, and went back to his bedroom, and it was only when he failed to come down to his breakfast that he was sought for, and discovered as stated. A bottle, said to have contained prussic acid, was found on the dressing-table, and when discovered the body was warm, and medical aid was at once summoned, but it was too late. Mr. Moore, who leaves a widow and family, had kept a large shop in the town for over twenty years, and he was well known in the district. At an inquest held on Monday, Mrs. Moore said her late husband, who was 44 years of age, had been worried recently. On Friday morning he was called up by a bailiff, and when he returned to his bedroom she thought he looked troubled. She went to speak to the bailiff, and on returning found her husband on the bed unconscious. There was evidence that he had taken prussic acid. He died soon afterwards. Evidence was given which showed that the

bailiff was in possession at the suit of a Birmingham money-lender. The debt remaining was only 22 $\frac{1}{2}$.; in October last it was 65 $\frac{1}{2}$. He seemed to have been much troubled about a threatened sale of his goods. The jury found that he had "Committed suicide while in a state of temporary insanity."

—On Friday, January 10, an inquest was held at Fordingbridge, Hampshire, on the body of Mr. F. W. Haydon, chemist and druggist of that town, who was found dead in bed on the previous morning. From the evidence of Miss Helary and Annie Jay, a domestic servant, it appeared that the deceased on the morning of his death went downstairs early into the shop, and returned to his bedroom about five minutes after. He had suffered much from an amputated leg, but not recently, but he had been dreading the return of the pains, and had been much depressed in consequence during the past two months. He was of a very kind disposition. Mr. Rake, surgeon, said Mr. Haydon died from the effects of prussic acid. He had been using a liniment of aconite and belladonna for his wrist, and had been taking Easton's syrup as a stimulant. He made a post-mortem examination, and found that a large dose of poison had been taken. He should think from 2 to 3 drachms. The coroner in summing up regretted Mr. Haydon's death, and the jury returned a verdict of "Suicide whilst of unsound mind."

Trade Notes.

MESSRS. SEABURY & JOHNSON favour us with a pretty gilt calendar for 1890 on leather, as a new year's greeting.

MR. ARMBRECHT's new showcards for his coca wine are such beautiful representations of beautiful young damsels that Mr. Blank had better ask his wife's consent before he hangs them up in his pharmacy.

MR. B. KÜHN, the agent for papain (Finkler), sends us the records of a number of comparative experiments made with this papain and other ferments by Mr. E. G. Clayton, F.I.C., F.C.S., the results of which are greatly in favour of the papain.

MESSRS. W. J. BUSH & Co., of Artillery Lane, announce that they have taken another factory in Messina for the manufacture of essential oil of lemon. The new works are three times the size of the old, and one of their partners is on the spot superintending the manufacture.

MESSRS. J. & D. MACNAIR & Co., of 29-31 Robert Street, Cheetham, Manchester, send us a specimen of a letter-rack which they are sending out to their friends. The rack is a practical contrivance of stout cardboard, with gilt lettering on a brown background. From the firm's price-lists we note that they make a speciality of gum arabic, and that they have opened new licensed premises for spirits of wine.

MESSRS. CHAS. SMITH & GOWLAND, 11 Jewry Street, E.C., have sent us a copy of their calendar for 1890, which is neatly printed in two colours and contains mention of the dates of the principal auction sales of produce fixed for the present year. The calendar is adorned with a view of the indigo show-room in Crutched Friars, appropriately printed in blue.

MESSRS. G. & G. STERN, of 62 Gray's Inn Road, offer, as will be seen from their advertisement, to supply chemists with pamphlets on "Influenza; its Symptoms and Treatment, by a London Physician," which can be sold at 1 $\frac{1}{2}$ d. or given away. The pamphlet gives full instructions as to the use of the pumiline extract, essence, and liniment. These instructions will also be found in their advertisement.

MOSCOW SALTS.—This is the name which Messrs. H. Gilbertson & Son have given to an "antidote for influenza," which takes the form of a charged smelling-bottle. The salts, we believe, are a combination of approved remedies; they are not over pungent, but leave a refreshed and pleasant feeling in the nostrils after a sniff. The salts are sold at a popular price, and as they are adapted for the treatment of common cold and the many forms of catarrh, they deserve a niche on the chemist's show-case.

MESSRS. BEHRMANN & V. SPRECKELSEN, of Hamburg, announce that they have transferred their drug and chemical business to Messrs. Rudolf Wilhelm Behrmann and Walter Robert Behrmann, who will carry it on under the style of

Behrmann Gebrüder. Dr. Alfred E. Behrmann has been admitted a partner into the firm of Behrmann & v. Spreckelsen, who will continue to carry on the manufacture of mineral waters under that name. All three gentlemen are sons of Mr. J. Behrmann, the head of the original firm.

MENTHOLIN SNUFF.—The French Hygienic Society, 6 Conduit Street, W., send us a sample of this preparation, which they are now introducing as a remedy for cold in the head. We have on several occasions reported the advantageous results which have followed the use of preparations of menthol in the treatment of coryza, and this preparation appears to satisfy all requirements. It allays irritation, and does not induce the remotest disposition to sneeze. The French Hygienic Society put up their preparation in small boxes suitable for the pocket.

PENNY QUININE.—Mr. Henry Lester, chemist, Nuneaton, informs us that he has been putting up quinine in penny packets (4 grains in each) for some months past. The idea was suggested to him by an article in this journal some fourteen months ago. He mounts the packets on cards and sells them largely to small shopkeepers. He has sold eight gross since last November. But a still cheaper article reaches us from the Anderston Apothecaries' Hall, 27 Main Street, and 1 Washington Street, Glasgow. The proprietor puts up four quinine (as well as other kind of) pills in a glass tube, and sells the lot for a penny. He does not say how much quinine there is in each.

Personalities.

MR. F. A. HAYS has commenced business at High Street, Halesowen.

THE Swansea Drug Stores, 44 Wind Street, Swansea, has been sold by Mr. J. Atkins to Mr. Williams.

MR. F. J. SPURGEON, who is retiring from the drug trade, has disposed of his business at Upper Brook Street, Ipswich, to Mr. Marsh.

WE have received a copy of a choral march entitled "Honour to the Mighty," the words and music of which are by Mr. Weddell (of Mawson, Swan & Weddell), of Newcastle-on-Tyne. It is a very spirited production.

MR. H. B. POLLARD, of Christ Church, Oxford, son of Mr. H. H. Pollard, chemist, Ryde, took the B.Sc. degree at the recent examination in connection with the London University, and also first-class honours in Zoology.

WE regret to hear that Professor Atfield is at present confined to his bedroom with a rather severe attack of influenza. Mr. J. C. Umney has been laid by as well as his father, and the business of the firm has been much impeded by the number of their staff attacked. Messrs. Burgoyne, Burbidges, Cyriax & Farries have had to issue a circular, apologising for delay in the execution of orders in consequence of the short-handedness owing to the epidemic. Mr. Stevenson (Fletcher, Fletcher & Stevenson) also took a germ home with him last week, and was on the sick-list for a few days.

NEW COMPANY.

UNION DRUG COMPANY (LIMITED).—This company has been formed to carry on the business of chemists and pill manufacturers, and, in particular, to take over the business of the Union Drug Company, Oxford Street. Capital, 1,000 $\frac{1}{2}$ in 5s. shares, of which 500 are founders' shares, sharing by equal division all profits above 10 per cent. dividend on ordinary shares. Subscribers of one share each are:—Frederick Charles Peachey, jeweller, 241 Compton Buildings, Goswell Road; George C. Cardnell, correspondent, 20 Cantlowes Road, Camden Square; Sydney H. Monckton, clerk, 34 Great Queen Street, Holborn; Arthur Twallin, clerk, 12 Salisbury Villas, Seaford Road, Stamford Hill; Henry Thomas Richards, correspondent, 8 Shepherd's Place, Kennington; Henry Davis, clerk, 73 St. Augustine's Road, Camden Square; and William B. Perkins, architect, the Grove, Hammersmith. Registered January 7, without special articles.

Pharmaceutical Society of Great Britain.

PRELIMINARY EXAMINATION.

QUESTIONS given on Tuesday, January 14, 1890:—

LATIN.

(Time allowed—from 11 A.M. to 12.30 P.M.)

I. For all Candidates. Translate into Latin:—

1. This girl was very like her mother.
2. Sulla lost one hundred and twenty of his men.
3. On the journey he was killed by the enemy.
4. Of what city were the walls two hundred feet high?
5. Hasdrubal having been conquered, Carthage soon perished.

II. Translate into English *either* A. (Caesar) or B. (Virgil).

(Candidates must not attempt both Authors.)

A. CAESAR.

1. Eodem tempore Aedui Ambarri, necessarii et consanguinei Aeduorum, Caesarem certiores faciunt, sese, depopulatis agris, non facile ab oppidis vim hostium prohibere; item Allobroges, qui trans Rhodanum vicis possessionesque habebant, fuga se ad Caesarem recipiunt, et demonstrant, sibi praeter agri solum nihil esse reliqui. Quibus rebus adductus, Caesar non expectandum sibi statuit, dum, omnibus fortunis sociorum consumptis, in Santonos Helvetii pervenirent.

2. Hoc proelio trans Rhenum nuntiato, Suevi, qui ad ripas Rheni venerant, domum reverti coeperunt; quos Ubii, qui proximi Rhenum incolunt, perterritis insequuti, magnum ex his numerum occiderunt. Caesar, una aestate duobus maximis bellis confectis, maturius paulo, quam tempus anni postulabat, in hiberna in Segnanos exeritum deduxit; hibernis Labienum praeposuit; ipse in ulteriorem Galliam ad conventus agendos profectus est.

Grammatical Questions.—For those only who take Caesar.

1. Give the genitive singular and plural, and state the gender, of *proelio*, *ripas*, *aestate*, *tempus*, *hiberna*, *exercitum* (par. 2).
2. Give the principal parts of the verbs in italics (par. 1).
3. What is it that determines to what declension or to what conjugation a word belongs?
4. Explain the different constructions after verbs of *fearing* and *forbidding*.

B. VIRGIL.

1. Extemplo Aeneae solvantur frigore membra;
Ingemit et, duplices tendens ad sidera palmas,
Talia vocis refert: O terque quaterque beati,
Quis ante ora patrum, Trojae sub moenibus altis,
Contigit oppetere! O Danaum fortissime gentis,
Tydide, mene Iliacis occumbere campis
Non potuisse, tuaque animam hanc effundere dextra?
Saevus ubi Aeneidae telo jacet Hector, ubi iugens
Sarpedon; ubi tot Simois eorupta sub undis
Scuta virum galeasque et fortia corpora volvit.
2. Postquam prima quies epulis mensaeque remotae,
Crateras magnos statuunt, et vina eoronant.
Fit strepitus tectis, vocemque per ampla volutant
Atria; dependunt lyelini laquearibus aureis
Incensi, et noctem flammis funalia vincunt.

Grammatical Questions.—For those only who take Virgil.

1. Give the genitive singular and plural, and state the gender of *crateras*, *tectis*, *atria*, *lyelini*, *noctem* (par. 2).
2. Give the principal parts of the verbs in italics (par. 1).
3. What is it that determines to what declension or to what conjugation a verb belongs?
- 3 Explain the different constructions after verbs of *fearing* and *forbidding*.

ARITHMETIC.

(Time allowed—from 12.30 P.M. to 2 P.M.)

[The working of these questions, as well as the answers, must be written out in full.]

1. Multiply thirty-seven millions six hundred and fifty-four thousand two hundred and nineteen pounds seventeen

shillings and sixpence by 5, 11, and 45; add together the three products, and write in words the value of the result.

2. The remainder of a division is 37, the quotient 326, the divisor $2\frac{1}{2}$ times the sum of both. Find the dividend.

3. Divide 4 tons 3 qrs. 8 lbs. 5 oz. by $16\frac{1}{13}$.

4. Divide 73.8 by .0018, and multiply the quotient by $\frac{3}{15}$ of .009747.

5. Write down the Metric Table of Length, and give the English equivalents.

6. What will be the value of 9 hectog. 9 dekag. 3 centig. of silver at 5s. 6d. an ounce?

7. If $5\frac{1}{2}$ per cent. be gained by selling goods at 5l. 5s. 6d. per cwt, what will be the gain per cent. by selling them at 1s. 3d. per lb.?

ENGLISH.

(Time allowed—from 3 P.M. to 4.30 P.M.)

1. Analyse the following:—

Full many a gem of purest ray serene,
The dark unfathomed caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air.

2. Parse fully:—

Let not Ambition mock their useful toil.

3. Illustrate, by examples, the adjectival and the adverbial use of *wide*, *pretty*, *much*, *right*.

4. In the following passage supply the necessary capital letters, and put in the stops and inverted commas where necessary:—o my child my child he said in a forlorn manner i am an unhappy man to see you thus what avails it to me that you do not reproach me if i so bitterly reproach myself he bent his head and spoke low to her louisa i have a mis-giving that some change may have been slowly working about me in this house by mere love and gratitude that what the head had left undone and could not do the heart may have been doing silently can it be so she made him no reply.

5. [This must be attempted by every Candidate.] Write a short composition on one of the following subjects:—

- (i.) Advantages of a good Education.
- (ii.) Resignation under affliction.
- (iii.) Flattery.
- (iv.) "Necessity is the mother of invention."

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

A MEETING was held in the Pharmaceutical Society's House, 36 York Place, on January 8, at 9.15 P.M. Mr. A. R. Bennet, President, in the chair. The first paper read was on

A DIGESTIVE EXTRACT OF TEA.

By Peter Boa.

A few days ago a sample of a preparation which was called "A Digestive Extract of Tea" came into my hands. It was stated in regard to it that "the aroma and the caffeine are preserved, while the tannin is neutralised and rendered innocuous."

The extract was in the form of a rough powder, apparently a mixture of brown and white particles. It had the aroma of tea, and tasted sweetish with just a trace of bitterness. Curious to know how the tannin was "neutralised," I subjected a portion of the extract to examination. I first made a cup according to the directions with hot water. The extract dissolved, and formed a clear beverage with less colour than is generally possessed by a cup of tea prepared in the ordinary way. It was pleasant to the palate, the aroma being good. A little of this solution in a test-tube gave a deep bluish black colour with a few drops of ferric chloride solution, indicating plenty of tannin, apparently in its usual condition. A little of the dry extract was then burned on the point of a knife. In the process of burning it emitted an odour which is generally associated with burning bones.

A small quantity shaken up in a test-tube with cold water

left adhering to the sides of the tube many minute specks which swelled and became soft after standing a few minutes. A few of these specks picked out dissolved readily on warming with a few drops of water, and gave with solution of tannin a precipitate characteristic of gelatine.

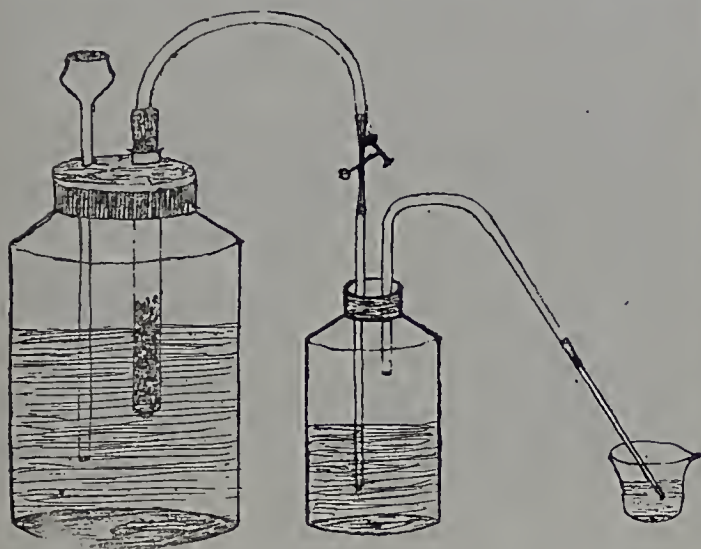
The preparation, therefore, appears to be a powdered extract of tea with sugar and gelatine. The way in which the gelatine neutralises the tannin of the tea is left to the imagination. It is my experience that gelatine and infusion of tea react only after long standing.

The next communication was on

A CONVENIENT GAS GENERATOR.

By J. H. Hoseason.

The apparatus is illustrated in the subjoined figure. It consists of a 1-oz. quinine bottle, a small wide-mouthed bottle, a test-tube, a thistle funnel, three corks, some common glass and indiarubber tubing, and a burette clip. It



will be seen at a glance that this apparatus can be fitted up at the cost of a little trouble and a few pence, and that any part of it coming to grief can be replaced with the greatest ease. This apparatus could also be used to perform Marsh's test for arsenic, and it would give the operator time to make his experiments at his leisure, instead of hurrying through them. In using it for generating sulphuretted hydrogen the ferrous sulphide is placed in a test-tube having a small hole in the bottom of it; the tube is closed by means of a tight-fitting cork, which is perforated for a delivery tube. The delivery tube consists of a glass and guttapercha tubing, fitted with a burette clip, so that it may be opened or closed at pleasure. This test-tube, containing the ferrous sulphide, and corked (the delivery tube being closed), is inserted in the large bottle, and the dilute sulphuric acid added through the thistle funnel. If gas is required, open the burette clip, slide it up or down till it stretches over the glass tubing, leave it in this position till the desired quantity of gas has been obtained, then slide it over the guttapercha tubing and allow it to stop the tube. On closing the delivery tube the gas generated forces the acid out of the test-tube, and all action ceases. On opening the delivery tube again the confined gas escapes, the acid again flows into the test-tube, and more gas is evolved. A wash-bottle is attached, but this can be dispensed with if desired.

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<i>B.P. Name.</i>	<i>Synonym.</i>
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" "	Lin. saponis co.
" saponis	Opodeldoc
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" bismuth. et ammon. cit.	Solution of bismuth
" plumbi subacet.	Goulard's extract
" " " dil.	" lotion
Lotio hydrarg. nig.	Black wash
Mist. ferri aromat.	Heberden's ink
Mist. ferri co.	Griffith's mixture
Pil. colocynth. co.	Gregory's pill
" " et hyos.	Hamilton's pill
" hydrarg. subchlor. co.	Plummer's pill
Potassii carbonas	Salt of tartar
" nitras	Nitre, saltpetre
Pulv. ipecac. co.	Dover's powder
Sulphur precipitatum	Milk of sulphur
Tinct. benzoini co.	Friar's balsam
" ferri perchlor.	Steel drops
" camph. co.	English paregoric
" opii ammon.	Scotch "
Ung. chrysarobin.	Ointment of chrysophanic acid
" hydrarg.	Blue ointment
" hyd. nit. dil.	Citrine ointment
" " ox. rub.	Red precipitate ointment
" " subchlor. co.	Calomel "
" resinæ	Basilicon "
Zinci oxidum	Tutty powder

The SECRETARY read a letter from Mr. W. Duncan, who had arranged the meeting, intimating that he was suffering from influenza and could not attend. The "Notes and Queries" to have been contributed by him were therefore postponed.

The reading of the papers gave rise to a discussion which was taken part in by Messrs. Bell, Bennet, Boa, Dougall, Findlay, Henry, Hill, Hoseason, and Lunan. It was stated that the value of tea as a beverage was in direct proportion to the percentage of tannin in the leaves, and this raised a doubt as to the propriety of "neutralising" what seemed to

Pharmaceutical Society of Great Britain.

PRELIMINARY EXAMINATION.

QUESTIONS given on Tuesday, January 14, 1890:—

LATIN.

(Time allowed—from 11 A.M. to 12.30 P.M.)

I. For all Candidates. Translate into Latin:—

1. This girl was very like her mother.
2. Sulla lost one hundred and twenty of his men.
3. On the journey he was killed by the enemy.
4. Of what city were the walls two hundred feet high?
5. Hasdrubal having been conquered, Carthage soon perished.

II. Translate into English *either* A. (Caesar) *or* B. (Virgil).

(Candidates must not attempt both Authors.)

A. CAESAR.

1. Eodem tempore Aedui Ambarri, neccarii et consanguinei Aeduorum, Caesarem certiore faciant, scse, depopulatis agris, non facile ab oppidis vim hostium prohibere; item Allobroges, qui trans Rhodanum vicos possessionesque habebant, fuga se ad Caesarem rapiunt, et demonstrant, sibi praeter agri solum nihil esse reliqui. Quibus rebus adductus, Caesar non expectandum sibi s'atuit, dum, omnibus fortunis sociorum consumptis, in Santonos Helvetii pervenirent.

2. Hoc proelio trans Rhenum nuntiato, Suevi, qui ad ripas Rheni venerant, domum reverti coeperunt; quos Ubii, qui proximi Rhenum incolunt, perterriti insequuti, magnum ex his numerum occiderunt. Caesar, una aestate duobus maximis bellis confectis, maturius paulo, quam tempus anni postulabat, in hiberna in Sequanos exercitum deduxit; hibernis Labienum praeposuit; ipse in citeriorem Galliam ad conventus agendos profectus est.

Grammatical Questions.—For those only who take Caesar.

1. Give the genitive singular and plural, and state the gender, of *proelio*, *ripas*, *aestate*, *tempus*, *hiberna*, *exercitum* (par. 2).
2. Give the principal parts of the verbs in italics (par. 1).
3. What is it that determines to what declension or to what conjugation a word belongs?
4. Explain the different constructions after verbs of *fearing* and *forbidding*.

B. VIRGIL.

1. Extemplo Aeneae solvuntur frigore membra;
Ingemunt et, duplices tendens ad sidera palmas,
Talia vocem refert: O terque quaterque beati,
Quis ante ora patrum, Trojae sub moenibus altis,
Contigit oppetere! O Danaum fortissime gentis,
Tydide, mene Iliacis occumbere campis
Non potuisse, tuncque animam hanc effundere dextra?
Saevus ubi Aecidae telo jacet Hector, ubi iugens
Sarpedon; ubi tot Simois correpta sub undis
Scuta virum galeasque et fortia corpora volvit.
2. Postquam prima quies epulis mensaeque remotae,
Crateras magnos statuunt, et vina coronant.
Fit strepitus tectis, vocemque per ampla volutant
Atria; dependent lychni laquearibus aureis
Incensi, et noctem flammis funalia vincunt.

Grammatical Questions.—For those only who take Virgil.

1. Give the genitive singular and plural, and state the gender of *crateras*, *tectis*, *atria*, *lychni*, *noctem* (par. 2).
2. Give the principal parts of the verbs in italics (par. 1).
3. What is it that determines to what declension or to what conjugation a verb belongs?
- 3 Explain the different constructions after verbs of *fearing* and *forbidding*.

ARITHMETIC.

(Time allowed—from 12.30 P.M. to 2 P.M.)

[The working of these questions, as well as the answers, must be written out in full.]

1. Multiply thirty-seven millions six hundred and fifty-four thousand two hundred and nineteen pounds seventeen

shillings and sixpence by 5, 11, and 45; add together the three products, and write in words the value of the result.

2. The remainder of a division is 37, the quotient 326, the divisor $2\frac{1}{2}$ times the sum of both. Find the dividend.

3. Divide 4 tons 3 qrs. 8 lbs. 5 oz. by $16\frac{1}{15}$.

4. Divide 73.8 by .0018, and multiply the quotient by $\frac{3}{15}$ of .0009747.

5. Write down the Metric Table of Length, and give the English equivalents.

6. What will be the value of 9 hectog. 9 dekag. 3 centig. of silver at 5s. 6d. an ounce?

7. If $5\frac{1}{2}$ per cent. he gained by selling goods at 5l. 5s. 6d. per cwt., what will be the gain per cent. by selling them at 1s. 3d. per lb.?

ENGLISH.

(Time allowed—from 3 P.M. to 4.30 P.M.)

1. Analyse the following:—

Full many a gem of purest ray serene,
The dark unfathomed caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air.

2. Parse fully:—

Let not Ambition mock their useful toil.

3. Illustrate, by examples, the adjectival and the adverbial use of *wide*, *pretty*, *much*, *right*.

4. In the following passage supply the necessary capital letters, and put in the stops and inverted commas where necessary:—o my child my child he said in a forlorn manner i am an unhappy man to see you thus what avails it to me that you do not reproach me if i so bitterly reproach myself he bent his head and spoke low to her louisa i have a mis-giving that some change may have been slowly working about me in this house by mere love and gratitude that what the head had left undone and could not do the heart may have been doing silently can it be so she made him no reply.

5. [This must be attempted by every Candidate.] Write a short composition on one of the following subjects:—

- (i.) Advantages of a good Education.
- (ii.) Resignation under affliction.
- (iii.) Flattery.
- (iv.) "Necessity is the mother of invention."

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

A MEETING was held in the Pharmaceutical Society's House, 36 York Place, on January 8, at 9.15 P.M. Mr. A. R. Bennet, President, in the chair. The first paper read was on

A DIGESTIVE EXTRACT OF TEA.

By Peter Boa.

A few days ago a sample of a preparation which was called "A Digestive Extract of Tea" came into my hands. It was stated in regard to it that "the aroma and the caffeine are preserved, while the tannin is neutralised and rendered innocuous."

The extract was in the form of a rough powder, apparently a mixture of brown and white particles. It had the aroma of tea, and tasted sweetish with just a trace of bitterness. Curious to know how the tannin was "neutralised," I subjected a portion of the extract to examination. I first made a cup according to the directions with hot water. The extract dissolved, and formed a clear beverage with less colour than is generally possessed by a cup of tea prepared in the ordinary way. It was pleasant to the palate, the aroma being good. A little of this solution in a test-tube gave a deep bluish black colour with a few drops of ferric chloride solution, indicating plenty of tannin, apparently in its usual condition. A little of the dry extract was then burned on the point of a knife. In the process of burning it emitted an odour which is generally associated with burning bones.

A small quantity shaken up in a test-tube with cold water

left adhering to the sides of the tube many minute specks which swelled and became soft after standing a few minutes. A few of these specks picked out dissolved readily on warming with a few drops of water, and gave with solution of tannin a precipitate characteristic of gelatine.

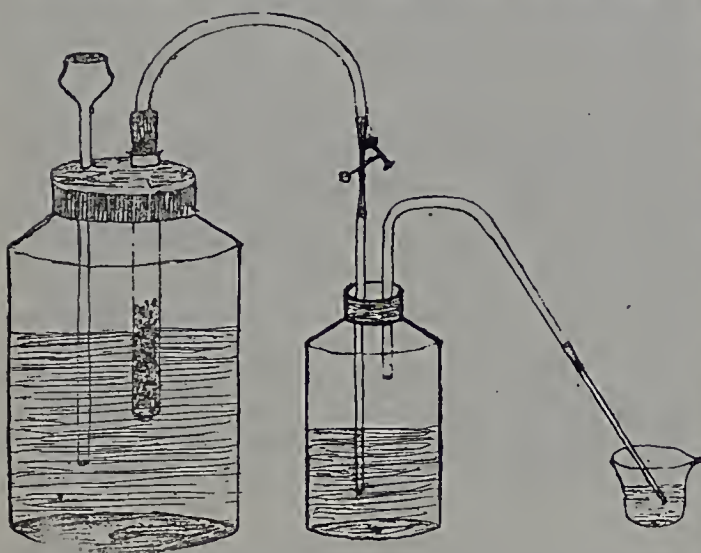
The preparation, therefore, appears to be a powdered extract of tea with sugar and gelatine. The way in which the gelatine neutralises the tannin of the tea is left to the imagination. It is my experience that gelatine and infusion of tea react only after long standing.

The next communication was on

A CONVENIENT GAS GENERATOR.

By J. H. Hoseason.

The apparatus is illustrated in the subjoined figure. It consists of a 1-oz. quinine bottle, a small wide-mouthed bottle, a test-tube, a thistle funnel, three corks, some common glass and indiarubber tubing, and a burette clip. It



will be seen at a glance that this apparatus can be fitted up at the cost of a little trouble and a few pence, and that any part of it coming to grief can be replaced with the greatest ease. This apparatus could also be used to perform Marsh's test for arsenic, and it would give the operator time to make his experiments at his leisure, instead of hurrying through them. In using it for generating sulphuretted hydrogen the ferrous sulphide is placed in a test-tube having a small hole in the bottom of it; the tube is closed by means of a tight-fitting cork, which is perforated for a delivery tube. The delivery tube consists of a glass and guttapercha tubing, fitted with a burette clip, so that it may be opened or closed at pleasure. This test-tube, containing the ferrous sulphide, and corked (the delivery tube being closed), is inserted in the large bottle, and the dilute sulphuric acid added through the thistle funnel. If gas is required, open the burette clip, slide it up or down till it stretches over the glass tubing, leave it in this position till the desired quantity of gas has been obtained, then slide it over the guttapercha tubing and allow it to stop the tube. On closing the delivery tube the gas generated forces the acid out of the test-tube, and all action ceases. On opening the delivery tube again the confined gas escapes, the acid again flows into the test-tube, and more gas is evolved. A wash-bottle is attached, but this can be dispensed with if desired.

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he the most important constituent.* On the motion of the Chairman, votes of thanks were awarded to the various authors.

The CHAIRMAN intimated that next meeting would take place early in February, when there would be a debate on the question, "Is a Compulsory Curriculum Desirable?" to be opened by Messrs. J. Lothian and J. B. McCurrie. The meeting then closed.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

INFLUENZA is everywhere disappearing, and soon will probably be a thing of the past. It is estimated to have caused in Paris four or five times as many deaths as the cholera of 1884. Only the name "cholera" always frightens people more than any other disease.

THE *Moniteur Scientifique de Quesneville* has appeared this month, published by Dr. George Quesneville, as announced. The present staff includes, besides Dr. Quesneville, Professor P. Schutzmberger, of the Academy of Sciences, as a co-director, and Professor A. Haller, of the Nancy Faculty of Sciences, as editor-in-chief.

THE SMOKELESS POWDER.—M. Paul Vieille, an engineer attached to the powder and saltpetre department, has been awarded by the Academy of Sciences the Leconte prize of 2,000*l.* for his invention of the smokeless powder now used in the French army. The discovery, it appears, was not due to chance, but to scientific deductions and experiments.

TO PRESERVE FRESH BLOOD.—Dr. Chas. Richet has recommended the following:—

	Grammes
Gelatin	25
Water	75
Fresh blood	800

Dissolve the gelatin in the water at a gentle heat, and when the solution has cooled down to about 60° C. (140° F.), drop in the blood, drawn from the living animal through a sterilised canula. Mix well, and introduce the liquor into wide-mouth phials, where it will soon become solid, and keep unaltered for a long time, like an ordinary fruit jelly, provided the surface be protected from mouldiness in the same way as common preserve; that is, by means of paper moistened with dilute alcohol.

THE status of "specialties" in the new Pharmacy Bill is not, it must be confessed, very clear. Instead of plainly taking up the subject anew, as it does with the practice of pharmacy, the proposed law proceeds by repealing some old statutes, and allowing others to stand. As regards secret preparations there is no doubt. Their sale and advertising remain forbidden, and no medicinal compound can be patented. But with "specialités" the case is different, these articles as a class not being recognised by law. The fact is, there are specialties and specialties. Some are arrant secret medicines, and consequently provided for; others, on the contrary, are lawful commercial property, the result of scientific research and improvement, with a status well settled by jurisprudence. But on the borderland there are many preparations that are neither fish nor flesh, and it is here that the difficulty begins. It was easy enough for the Brussels Congress and the French Pharmaceutical Association to vote that all specialties be abolished. Law-making bodies are obliged to proceed differently. As the Bill stands, it would take a clever lawyer to tell how it affects the sale of proprietary medicines.

A CONSEQUENCE OF THE CHEMICAL CONGRESS.—Last year a law, reported at the time in THE CHEMIST AND

DRUGGIST, was passed somewhat hastily to regulate the manufacture and sale of sugar wine, and raisin wine. But soon the legislation proved impracticable, and it received its death-blow when the Chemical Congress declared unanimously there is no method at present known to science for detecting the addition of raisin to ordinary wine. It may be well to here explain that the term raisin wine (*vin de raisins secs*) is applied to the fermented beverage made from raisins macerated with water, and sugar wine (*vin de sucre*) to the liquor obtained by fermenting sugar and water in contact with the fresh marc of ordinary wine. Both beverages are recognised by law, and even the tax is refunded on all sugar so used by vintners; but each article must be sold for what it is. The distinction now proving impossible, Senator Meinadier has introduced a Bill whereby the use of raisins for making wine shall be under excise control, and all applications for drawbacks on sugar shall be published. The last provision is an affective one, as wine cannot profitably be made with taxed sugar.

SECOND CLASS PHARMACISTS MOVING.—At the annual meeting of the Sud-Ouest (South-western) Pharmaceutical Society, held on December 17, at Toulouse, M. Dejean, one of the secretaries, presented a resolution in favour of the pharmacists of the second class who form the bulk of rural dispensers. He said in substance that "whereas, according to the recent regulations, pharmacists of the second class are obliged to attend the same courses of lectures, and pass the same examinations as their brethren of the first class, they should be treated on a more equal footing. The lack of a baccalaureate degree should not make such difference between dispensers equally competent. Therefore, they pray that instead of being limited to one department, pharmacists of the second class be allowed to practise in all the departments composing the Academical circumscription of the school conferring the diploma." The resolution was adopted, and ordered to be presented to the Faculty and general council of the Toulouse Academical district. As the South-Western Society of Pharmacy numbers some 160 active, and many honorary and corresponding members, the petition seems likely to receive some attention.

PARIS SOCIETY OF PHARMACY.

THE regular monthly meeting, postponed from last week for a variety of reasons, including epidemic influenza, was held on January 15, and was chiefly devoted to the installation of new officers and the reading of yearly reports. On taking the chair, M. Vigier, the new president, after the customary thanks, appointed MM. Marty, Boymond, and Chastaing a committee to report on candidates. After which, retiring annual secretary Schmidt read his report on the scientific work performed and the changes which have occurred during the past year. The readers of THE CHEMIST AND DRUGGIST have been regularly informed of the important features of the papers and discussions at the proper time. The only fact of interest to be now added is that no death among the members has taken place since the last annual meeting.

Prof. Planchon, as perpetual secretary, made a very instructive report on *Materia Medica* as represented in the late Exhibition, and especially in comparison with the former Expositions of 1855, 1867, and 1878. He noted the progress generally made, and also some of the deficiencies. The paper is so complete and precise a review of the subject, that it would be almost impossible to make an abstract of it. To do the account justice it should be read in full. An interesting item of news, however, to be gathered from the report is that the college collection of *Materia Medica* has been presented with all the drug exhibits of Brazil, Bolivia, Paraguay, San Salvador, and Persia. As in addition those of Mexico have been promised, and valuable ones from Japan, China, the United States, and other countries remain from previous Exhibitions, it is proposed to turn the College museum into a geographical collection of *Materia Medica*, where all the world will be represented. Prof. Planchon intends to write the necessary catalogues and comments, while carpenters are at present at work on the necessary alterations, and M. Colin is busy classifying and labelling the specimens—no easy task with some outlandish drugs designated only by a strange native name.

* This is apparently an erroneous interpretation of Mr. David Hooper's conclusions, which showed that the finest teas are those which contain the most tannin (see this Journal, January 4, page 19). That is to say, the teas which have the finest aroma and fetch the highest prices happen also to be richest in tannin. This is a very different thing from the statement that the value of tea as a beverage is due in any way to its tannin content.—Ed. C. & D.

THE NEWCASTLE CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

A MEETING was held on the evening of January 8, in the Mosley Street Café, Mr. John Pike, President, in the chair. There was a very good attendance, including Mr. B. S. Proctor, F.C.S., who was loudly cheered on entering the room. It was intimated that the dinner which had been proposed had been postponed to some future date.

The PRESIDENT, after expressing the great pleasure he felt at seeing Mr. B. S. Proctor among them, and trusting he would frequently favour them with his presence, called upon Mr. T. Maltby Clague, Ph.C. (Hon. President), to give his lecture on

THE EXAMINATION OF URINE.

Mr. CLAGUE said that his reason for choosing this subject was that in many districts a knowledge of the subject was required by the chemist's assistant, and, as it did not in this neighbourhood form part of an apprentice's or assistant's training, a want might be supplied by the lecture and demonstration which he proposed to give them. He held that not only did this work properly belong to the chemist, but also the fee for it.

After some explanatory remarks as to the part which urine played in the human economy, he pointed out that abnormal urine, like all things human, sinned by omission and by commission, containing things which it ought not to contain or exhibiting deficiency in those things which it should contain, removing useful matters or storing up hurtful matters. Samples were then shown and physical appearances pointed out, specific gravity taken and acidity noted, &c. Three or four tests were given for albumen, but preference was given to the well-known mode of heating the upper part of some urine contained in a test-tube and then adding nitric acid; a cloudy layer below indicated a considerable quantity of urates; a cloud in the upper layer, clearing up when the acid was added, indicated the phosphates, while a permanent coagulum was proof of albumen. If the albumen were coloured, bile and blood should be tested for. Moore's, Trommer's, and Fehling's tests for sugar were reviewed, and the superiority of the last-mentioned shown. Quantitative tests were reviewed—Fehling's solution, also the yeast test, with measurement of the carbon dioxide, and by loss of weight.

Various instruments for estimation of urea were described, and a sample examined by means of a modification of Dr. Squibb's apparatus showed 1.45 per cent. of urea, and by its simplicity and prompt action gained approval. For convenience, a table was given for the customary examination of urine, drawn up in the form in which students of chemistry so much delight:—

Scheme for the Qualitative Analysis of Urine.

TAKE SPECIFIC GRAVITY.		TEST WITH LITMUS PAPER.	
Normal, 1.010 to 1.025.		Normal, slightly acid.	
If sandy deposit, Reserve it for microscope.			
To sample in long test-tube apply heat to the upper part.			
Cloudy when cold.	Cloudy when heated.	Cloudy when boiled in pre- sence of nitric acid.	Add boiled and filtered sample to Fehling's solu- tion, Red precip.
Clear when heated.	Clear with HNO ₃ .	ALBUMEN.	
<i>Urates</i>	<i>Phosphates</i>	If coloured co- agula, test for BILE with H ₂ SO ₄ and sugar.	SUGAR.

The lecturer was very attentively listened to and frequently applauded.

Mr. John Pike proposed a hearty vote of thanks to Mr. Clague for his very instructive paper.

Mr. Merson seconded the motion, and, Messrs. Widdell and Park having supported it,

Mr. B. S. PROCTOR stated he had studied the analysis of

urine since 1851. He was connected with the first chemists' association in Newcastle, which consisted of Mr. Jos. Swan, Mr. John Pattinson, and himself. He described several incidents which had occurred in his experience of urine-testing, one of which was that a medical man left him a sample to test. After applying his various reagents he got no results—sp. gr. same as pure water. On inquiry the doctor found out that the gentleman's butler, who had been instructed to procure a sample of his master's water, had misunderstood his orders, giving a sample of his drinking-water instead of urine.

Mr. Clague having briefly replied, and the President having announced that all those who intended going in for the competitions already announced must give in their names not later than February 5, the meeting closed at 10.15 P.M.

Gazette.

PARTNERSHIPS DISSOLVED

Boulton & Berry, Horneastle, surgeons and apothecaries.

Sinclair, James, & Son, Southwark Street, Southwark, and at Liverpool, manufacturers of and dealers in soap and other articles.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

Bettinson, William Thomas, Deptford, chemist and dentist.

Haynes, Henry Crane, Brackley, mineral-water manufacturer and coal merchant.

Howlett, Walker, Hill Street, Peckham, S.E., late of St. George's Circus, Southwark, surgeon's assistant.

Jones, Walter Robert, Birmingham, medical dispenser.

Marsden, Tom (trading as John Marsden & Sons), Wyke, near Bradford, manufacturing chemist and logwood cutter.

Todd, William Hurford, Tottenham, surgeon.

FIRST MEETING AND PUBLIC EXAMINATION.

Marsden, Tom (trading as John Marsden & Sons), Wyke, near Bradford, manufacturing chemist and logwood cutter—Jan. 20, Official Receiver's chambers, Bradford; Feb. 7, County Court, Bradford.

ADJUDICATIONS

Bettinson, William Thomas, Deptford, chemist and dentist.

Haynes, Henry Crane, Brackley, mineral-water manufacturer and coal merchant.

Howlett, Walker, Hill Street, Peckham, S.E., late of St. George's Circus, Southwark, S.E., surgeon's assistant.

Marsden, Tom (trading as John Marsden & Sons), Wyke, near Bradford, manufacturing chemist and logwood cutter.

Owen, Richard, Llanfachreth, chemist and grocer.

ORDER ON APPLICATION TO APPROVE SCHEME.

Rogers, Harry Cornelius Edwin, Birmingham, physician and surgeon—composition of 2s., payable within three months.

NOTICES OF DIVIDENDS.

Roberts-Dudley, Frederick John, Stalybridge, surgeon—first div. of 1s. 10d., any day, Official Receiver's offices, Manchester.

Symes, William Sandham, Chesterfield, doctor of Medicine—first div. of 1s. 9d., Jan. 21, 19 Marsden Street, Chesterfield.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Hillier, H. J. (trading as the Oil of Sahara Company and as J. Belleine & Co.), Praed Street and Edgware Road, manufacturer of the Oil of Sahara—discharge suspended for six months.

THE successful retail druggist who waits upon the counter trade must be more than an average judge of human nature. The pharmacist must be able to read in a man's eye the ravings of a murderer when a man comes in to buy poison to dispose of some human being. He must recognise the flush on the cheek and the nervous hand which is stretched out to take the morphine intended to end the customer's life. In short, the pharmacist should be a close observer of human nature in all the phases it presents itself to the druggist.—*Western Druggist.*

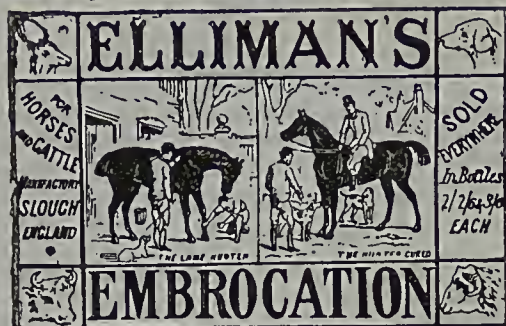
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EDITORIAL NOTES.

BUSINESS BOOMING.

THERE is no doubt of the revival of trade which is now current. In most departments of industry money is being made rapidly, and this result is telling, and will tell still more effectively, on all branches of trade engaged in distributing the produce of the earth and manufactured luxuries. Last year this country did a greater business, import, export, and carrying combined, than has ever been transacted before by as many people in the world's history. Taxes, excise, stamps, and all departments of the national revenue are buoyant, and even the National Debt is tottering. The question occurs: are chemists and druggists sharing fairly in the general prosperity, or are they preparing to get their portion of it? For even in times when manna falls from heaven it is necessary to go out and pick it up. They have just had, in many places, an extraordinary breeze of fortune in the wind which wafted the influenza germs to the British Isles. But epidemic incomes are too precarious to be relied upon. The history of the past few weeks shows, however, how ready the public is to dose itself when anything like a reasonable excuse presents itself. We have often remarked on the difficulty which chemists seem to experience in realising the enjoyment the public takes in its physic. Proofs are overwhelming that no luxury trade is more capable of development than that of medicine. But we recognise that it would be cruel on the part of the pharmaceutical body to use the giant's power they possess too recklessly. Other people, grocers, bakers, and the rest, want a living also. Up to a certain point, taking medicine does not do much harm, but it might easily be carried to such lengths that undertakers only would benefit.

But the public is going to be flush with money for other luxuries which chemists may legitimately and with advantage

to everybody supply. The perfumery trade is not yet half cultivated as it should be. In very large towns where there are special perfumery establishments chemists cannot, perhaps, successfully compete; nor in quite small places is there an opening for a large investment. But in fair-sized towns, and in roomy shops, this business is worth investing a fair sum in. And it is not likely to be worth much unless it is entered upon with some courage. What is wanted is a really good stock, plenty to choose from, and something handsome to look at. A side counter or a prominent corner, or one whole window, should be taken up for the display, and if made sufficiently attractive people with money will gradually begin to feel that they cannot do without some of the elegancies exhibited. If they do not spend their money that way they will only waste it in gloves and neck-ties at the drapers'. And the chemist with spare capital and with good judgment will get more than $2\frac{3}{4}$ per cent. if he lay it out in tempting stock and fixtures.

There are other ways in which people are really craving to spend their money, and the purpose of this note is to persuade chemists into some confidence in the actual existence of wealth and the growing demand for outlets for it. Amateur photographers, for example, swarm around us, and they are always complaining of the chemist who will not satisfy their wants, or who, if he does, charges them four times the usual price for chemicals, out of pure ignorance. Chemical apparatus is another luxury which myriads of people would love to have, and to break and to buy again if they could only get some idea of how to use it; and people by thousands are getting these ideas every year. Suggestions of other openings are to be found in the DIARY, and the beauty of it is that, the more chemists take up and cultivate new branches of business, the better it becomes for the whole body, because the public comes to recognise the chemist's shop as the place where he should naturally go for the satisfaction of his requirements.

THE REVISED DOCK TARIFF.

A FEW weeks ago we announced that the London and India Docks Joint Committee were about to revise their rates and charges on imported goods. If the official announcement had simply recorded the fact of that intention the matter would have been of sufficient interest to warrant an investigation of the revised rates, but the committee went somewhat out of their way in expressly stating that the reason which had compelled them to proceed to that revision was the dock strike of last summer. They cannot, therefore, complain if the estimated revenue from the increase which they have made in their charges is placed in comparison with the extra expense which, according to the directors' own estimates, the increased pay to the men was likely to throw upon their company. Upon looking through the revised tariff now before us, we find that the first important modification made in it is the curtailment of the importers' discounts on the charges for certain warehoused goods. Under the old rates liberal discounts were made to the importers of nearly every important class of merchandise warehoused at the docks. Now all these allowances, so far as regards coffee, East Indian cotton, pepper, and other staples, have been abolished altogether, at least in the printed list. Among drugs, Peruvian balsam, essential oils, camphor, gums, jalap; castor, cocoa-nut, palm, and olive oils, opium, senna, and a number of other articles are treated in the same fashion. Quinine is the only drug still retained in the allowance list, and the discount in this case has been reduced from 20 to 10 per cent. These allowances must have been an inducement to consignees to

have their goods handled by the dock companies; and where the foreign consignors have been given the benefit of the reductions the discounts must have had some influence in causing imports to be directed to this port. But as a matter of principle the abolition of such discounts and allowances affords no cause for complaint, and we have no doubt that the Dock Committee have carefully weighed the probability of their discontinuance affecting the quantity of the goods entrusted to their care. The rates and charges proper may be divided under two great sections, the rates for landing, manipulating, and delivering goods, and the rent charged for storing in the companies' warehouses. A few weeks ago, when it first became known that the tariff was about to be revised, rumours began to circulate that the expected increase would be thrown on the rent-charge, and to such a course the reasonable objection was urged that, as the cost of maintaining the warehouses or the value of the house property had not increased, it would be unfair to augment the charge for the mere storage of goods. As a matter of fact the rent-charges, with one or two exceptions, to which we refer later on, have not been altered. The next great source of the companies' income is the rates for handling the goods, which includes their landing, weighing, piling in lots, housing, and, in the case of a number of goods, also bulking, sorting, classing, mending of packages, and, in short, all the numerous and expensive operations which merchandise usually has to undergo in this port before it is ready for delivery to the conveyance which carries it away from the docks. In all these manipulations the cost of labour is necessarily an important factor, and under this branch of revenue the docks seem to have recouped themselves for the increased cost of their labour to an extent which renders the conclusion unavoidable that the strike has to them indeed been a blessing in disguise. In one way or another the charges on the greater part of the articles (about 400 in number) enumerated in the tariff have been very materially increased. Our space does not permit us to go into all the details of the alterations, and we will therefore confine ourselves to point out some of the effects which the revised tariff will exercise upon the drug and chemical trades alone. The landing charges on some of the principal articles under this category have been augmented as follows:—Aloes from $4\frac{1}{2}d.$ to $5d.$ per cwt.; alum from $3s. 9d.$ to $4s.$ per ton; cinchona bark (the tariff, by the way, has just added this word to its catalogue, the drug having up to date been known to the dock-folk as "Jesuits' or Peruvian bark") from $7\frac{1}{2}d.$ to $8d.$ per cwt.; borax from $5s.$ to $6s.$ per ton; buchu leaves from $7\frac{1}{2}d.$ to $9d.$ per cwt.; chiretta from $7\frac{1}{2}d.$ to $8d.$ per cwt.; cloves from $5d.$ to $7d.$ per cwt.; calumba from $4d.$ to $5d.$ per cwt.; unenumerated dry drugs from $7\frac{1}{2}d.$ to $9d.$ per cwt.; iodine, in the usual packages, from $10d.$ to $1s.$ each; ipecacuanha from $7\frac{1}{2}d.$ to $8d.$ per cwt.; jalap from $7\frac{1}{2}d.$ to $9d.$ per cwt.; liquorice from $4s.$ to $6s. 3d.$ per ton; nux vomica from $5\frac{1}{2}d.$ to $7\frac{1}{2}d.$ per cwt.; pepper from $4s. 2d.$ to $5s.$ per ton; quicksilver from $2\frac{1}{2}d.$ to $3d.$ per bottle; rhubarb, $2d.$ per package; and shellac from $4\frac{1}{2}d.$ to $6d.$ per cwt. It may be urged that the intrinsic value of most of these articles is so high that the increased rate will only add an unappreciable fraction to their cost, but it must be remembered that the London charges were already notoriously in excess of those imposed in any of the great ports which compete with us, and that profits are generally cut down to so small a percentage nowadays that the slightest increase may be the last straw to the camel's back. And if we cast a glance at some of the staple articles of trade the magnitude of the aggregate amount which the recent increase, supposing the quantities of goods handled to

remain the same as before, is likely to pour into the exchequer of the docks becomes still more apparent. Roughly calculated, the official returns of the goods landed by the docks (as apart from private undertakings) in the months of November and December last give about the following quantities:—Cotton 5,000 tons, hemp 1,800 tons, jute 3,500 tons, indiarubber 200 tons, pepper 1,800 tons, rice 9,000 tons, sugar 10,000 tons, tin 1,000 tons, and some of the principal drugs about 6,000 packages, say 500 tons in weight. If we compare the old charge for landing these goods, delivering them to the conveyance (the delivery charges are also materially increased), and take into account the discounts allowed to the importers, we find that the revenue to the docks of the quantities above-named would have been, in round figures, about 10,000%, whereas the same chain of manipulations under the new tariff will be 12,500%.

This is for two months of the year only, and the new tariff would, therefore, give an extra charge on the articles enumerated alone of about 15,000% per annum. And this calculation leaves out of account altogether numerous articles, such as wheat, spirits, hides, &c., which are handled by the docks in immense quantities. It is likely that the work we have estimated would not represent a fourth of the business done by the dock companies. At the time of the dock strike the directors made various statements of the cost which they estimated the concession of the men's demands would entail. The estimate believed to be nearest accuracy was 20,000% per year. We have shown that if the trade of the docks remains stationary they are likely to make at least four-fifths of this amount from the handling of the few staples which we have enumerated, a levy upon the commercial community which should surely be some solatium for the inconvenience to which the directors were put last summer.

There are several other matters in connection with the new rates which deserve attention. In the first place we understand that the inevitable "combination" has been established between the docks and the great majority of the private wharfingers, and that the parties composing the ring have bound themselves under certain penalties to adhere to a uniform scale of charges. The private wharfingers are to adopt the new dock tariff in its entirety, but in accordance with the old-established practice they will be allowed to offer their customers some slight discount on the dock charges though not nearly as much as some of them were wont to allow in the days of free competition. A few of the wharves, including some of those patronised by the drug trade, have declined to enter the combination, and will probably continue to undersell the ring; but even they have modified their tariff to some extent. Another important alteration in the dock tariff, and one which to some extent may exercise a check upon speculative business in certain articles, is the reduction of the period of freedom from rent-charge under the consolidated rate from twelve to six weeks. Under the old tariff a parcel of pepper, to take a speculative article as an illustration, if landed under the consolidated rate terms could remain in the warehouse for eighty-four days free of rent, thus affording an opportunity for speculators to hold it until a favourable market might offer, without extra cost for rent, and frequently such a parcel would change hands several times before any charge for rent accrued. Now that rent-free period is reduced to one-half, the extra revenue to the Dock Company on a parcel of, say, 20 tons of pepper thus amounting to 6%. This consolidated rate will in future also be charged on the gross weight of the goods instead of on the net weight as heretofore.

Surveying the whole of the new dock charges, it is

impossible to arrive at any other conclusion than that the companies will be making a good thing out of the change, while it is quite certain that the merchants will have to pay the piper, and will recoup themselves in their turn from their British and, if competition will permit it, from their foreign customers.

ON SOME EXPIRED PATENTS.

We hear it occasionally stated that the patent laws of the United Kingdom are such that they check the inventive genius of the country. The critics base their complaint on what they suppose to be the more favourable position of inventors in the United States, where, it is maintained, the fertility of invention is the direct result of cheap facilities for protecting new manufacturing ideas. The contrast is this: In the United Kingdom, the fourteen years' protection of a patent costs the patentee 154% ; in the United States seventeen years' protection is granted for a sum under 30%. There is another side to the picture, of course; and the principal features of it are that the preliminary fees in the United Kingdom amount to 4% ; in the United States the cost of application is 10%. In the case of the United Kingdom the preliminary fees give protection for four years, and thereafter annual payments of from 10% to 20% for ten years sustain the patent. It is obvious, therefore, that our patent laws are not a check upon invention—in fact, they are a stimulus to it, for the knowledge that a short period of protection can be obtained cheaply enables inventors to put their patents upon trial, and, should they not be of sufficient merit to produce a living, they can be abandoned before the end of the fourth year. A very large proportion of our patents are so abandoned, not being worth the 10% renewal fee.

In other respects, apart from fees, our patent laws are extremely favourable to inventors. This statement is based upon a consideration of the regulations under which letters patent are granted. According to these, inventions may be arranged in four groups, viz new or improved processes, new machines, new modes of adapting a known thing to a new purpose, and new articles of manufacture. They must not, prior to the application, have been in use, nor have been described, so that any person might have made it or used it. Another condition is that the complete specification must describe the invention, and the means of carrying it out in practice, in such a full, clear, and precise manner that any person with ordinary skill would be able to produce the result without difficulty. It depends upon the examiner whether the invention receives protection or not. The examiner is supposed to determine, amongst other things, if the invention is fairly described, but the manner in which this work is done can best be judged from the number of patent cases which come before our courts of law, and the remark made by a learned authority that a patent is never valid until a law court has decided it to be so. We are inclined to agree with that belief from an examination of the patents of 1875, which have now become the property of everybody. The collection is formidable, numbering many hundreds of inventions, a large proportion of which are of interest to the chemical and drug trades. For example, the letter A includes 51 patents in reference to acids, 11 in aerated liquids, 4 in alcohol, 83 in alkalies, 4 in alum, 10 in alumina, 3 in antimony, 3 in arsenic, and a few others of less importance. Under medicines there are a few dozen patents, some of them in reference to medicines or forms of medication which have come into extensive use. In that year, for example, Mr. William Robert Barker, of the firm of Savory & Moore, received protection (Pat. 1152) for

certain medicinal discs, prepared by bringing gelatine or isinglass into a state of solution, and adding thereto in exact proportion by weight morphia, atropia, or other alkaloid; sulphate of atropia, $\frac{1}{150}$ th of a grain, being especially mentioned for arresting profuse perspiration. The discs were made by bringing the medicated gelatinous solution to a proper consistency and rolling or moulding it. The description is so "full, clear, and precise," that we presume it was on that account that the British Pharmacopœia does not say how lamellæ are made. Pharmacists, however, will have some difficulty in gathering from the specification how Messrs. Savory & Moore make their lamellæ. So, also, in the case of Cleaver's terebene soap, pomade, cosmetic, &c., which were the subject of Patent 4335, granted to Mr. F. J. Cleaver. It seems, from the specification, that toilet soap contains $4\frac{1}{2}$ pints of terebene to 112 lbs. of soap; the household soap, 6 pints to 112 lbs. of soap; and the pomade, cosmetic, and toilet cream, $4\frac{1}{2}$ pints of terebene to 112 lbs. of suitable bases. It is interesting to know the exact proportions of the terebene, but the specification does not carry us any further than that. "Lactopeptine" was the subject of a patent (4,474) granted to Joseph Lawson Petingale, of 55 New Bond Street, who at great length enters into the merits of the different digestive agents, and describes the "new combination of mixtures for digestive purposes," which is composed of pepsine, 16 parts; pancreatine, 12 parts; diastase, 1 part; and sugar of milk, 80 parts. Hydrochloric acid or lactic acid also entered into the preparation, but in a different manner from what we are familiar with in the "lactopeptine" which has been before the trade for so many years. Mr. Petingale keeps his acid separate from the powders, enclosing it in a sealed tube, 50 parts of 1 per cent. hydrochloric acid going to 1 part of the mixture of digestive principles. Is this, we wonder, the origin of the American lactopeptine, or did the American product suggest this specification? Some patents are obviously invalid from the outset; one (2,980) which we came across in our search furnishes an excellent example of this. A gentleman in Ceylon claimed the use of oil of citronella as a cure for various diseases, amongst them rheumatism. He was granted protection for this on the application of a barrister-at-law, a relative apparently, whose devotion to his profession must have equalled, if not excelled, his affection. Here is the substance of another patent (3,756), a cure for nervous diseases, such as neuralgia:—

Ammon. carb.	..	..	..	..	3ss.
Potassii brom.	..	..	..	..	gr. 36
Sodæ bicarb.	..	..	..	..	3iss.
Quin. sulph.	..	..	..	..	gr. iij.
P. glycyrrh.	..	..	..	..	ʒj.
Tr. opii	..	..	..	..	ʒss.
Chloroform.	..	..	..	..	℥vj.
Ol. menth. pip.	..	..	..	..	℥ij.
Inf. cocci	..	..	..	..	ʒij.
Alumina	..	..	..	..	gr. iij.
Aq. camph.	..	..	..	..	ʒv. & ʒvss. (sic)

A sixth part of this was to be taken every six hours, and the preparation could also be used externally. Strange to say, the patentee was a medical practitioner in the East-end of London, not now on the medical register. We admire his polypharmic skill. Medicated wines were not unknown in 1875, for Mr. John Pattinson Eccles, of Liverpool, was granted a patent for one whose composition is now familiar. It was:—

Wine (red Spanish)	..	..	..	1 pipe
Extract of beef	..	..	..	1 stone
Cinchona tincture	..	..	..	1 quart
Cherato infusion	..	..	..	1 "
Glycerine	..	..	..	3½ gallons

One very curious patent was that for magnetic medicinal

preparations (Patent 2,102), made from magnetic oxide of iron, and after manufacture magnetised by placing in a helix of copper wire electrically excited. How "glycicals," whatever they were, became magnetised we have failed to gather from the specification. There was no international bias shown by the patent authorities when they granted a patent to Mr. Rudolf Taetz, of Moscow, for flexible gelatine capsules, the basis of which was made according to the following formula:—

Gelatine	..	..	..	..	1 pint
Glycerine	..	..	..	..	1½ "
Water	..	..	..	..	2½ "

The examiner of patents was evidently unaware that flexible gelatine capsules similar in composition to Mr. Taetz's had been made in this country for fully a dozen years before 1875.

These examples are fairly typical of the nature of the subjects for which patents are granted to those connected in one way or another with pharmacy; and they show that in many instances it is at least questionable if the supervising authorities have used due discretion in adjudicating upon the originality of the invention or the intelligibility of the specification. The country has been careful to protect the interests of inventors, to give them a close monopoly for such a length of time as will suffice to forestall competition, and it is only justice to citizens that inventors should be compelled to properly and fully describe their inventions. This is not always done; indeed, so vague are some specifications that they are unintelligible to persons of ordinary skill. Should this not be remedied?

COMMENTARY.

WHAT IS MACE?—Dr. H. H. Rusby takes the United States Pharmacopœia to task for describing mace as "The arillus of the fruit of *Myristica fragrans*, Houttuyn." He says it is "the arillode of the seed." A small thing this, but useful for Pharmacopœia compilers to keep in mind.

ALBUMEN IN URINE.—Dr. Mortimer Granville has for some years been seeking a trustworthy and convenient test for albumen in urine, and, after a long series of experiments, has found what he wanted in trichloroacetic acid, a fragment of which, placed in a little urine in a test-tube, gives a white cloud with distinctness when the albumen is present in only very small quantity, and it varies in density with the amount. Peptones are not deposited.

THE DUTIES OF PUBLIC ANALYSTS.—The *Lancet* puts down its foot somewhat heavily on Mr. A. H. Allen's suggestions regarding the extension of the work of public analysts. If, says our contemporary, many boards and many public analysts are energetic and capable, many others are inert and inefficient, and should not be entrusted with new duties. State chemists, properly appointed, well selected, armed with sufficient powers, and furnished with definite duties, would be invaluable to the State, but as yet no guarantee exists that these conditions will be fulfilled in any given case.

QUININE AND THE INFLUENZA.—The man on the *Financial News* who bought quinine at 5s., and struggles so valiantly to recover his losses by "bulling" the chemica on every opportunity, has hit on a golden chance in consequence of the current epidemic. He assures the confiding readers of that journal that stocks are being cleared off at an enormous rate, "the increase in the consumption of quinine owing to it [the influenza] being estimated at 50,000 oz. per day." Allowing an ounce of quinine per day

to, say, fifty persons, that would give a total of 2,500,000 persons taking quinine every day for the influenza.

A CUMMIN CURIOSITY.—Dr. C. Nicolaysen, writing to the *Chemiker-Zeitung* in regard to the cultivation of cummin in Norway, points out that the seed grown in the neighbourhood of Christiania, lat. $59^{\circ} 55'$, yields 6.1 per cent. of essential oil, while that grown at Tromsø, lat. $69^{\circ} 39'$, yields 6.4 per cent. The average amount of oil obtained from cummin seed grown in Central Europe is 4.8 per cent., the yield varying from 2.9 to 7 per cent. It is further pointed out that this variation is due in part to the carvol which the oil contains. That obtained in Central Europe yields, according to Flückiger, 64.5 per cent. of this body, whereas the Norwegian oil does not yield more than 50 per cent. The specific gravity of the oil varies from .9048 to .9064.

DANGEROUS FUN.—Professor Cook, the chemistry professor of Harvard College, has a reputation for facetiousness, and his lectures are highly popular, though the attraction appears to partake somewhat of the fearsomeness with which little children pay their first visit to Madame Tussaud's Chamber of Horrors. One of his lectures, says the *Toronto Mail*, is devoted to dangerous explosives, and a stir always goes over the room when he picks up a bottle labelled nitro-glycerine. His smile is as innocent as a child's, and it reveals the most genial and sympathetic nature in Harvard College. When he picks up the bottle and holds it up, the yellow liquid stirring with the shaking of his hand, he always says something like this:—"Now, gentlemen, it is commonly believed that if I were to drop this little bottle we should all be blown to the skies (his hand trembles a little more, and timid freshmen look longingly at the door); but if this compound is pure, perfectly pure, mind you, I can light a match with perfect safety and thrust it down the neck of the bottle." Here he feels for a match. "But," he instantly adds, "I am free to confess that I have not enough confidence in its purity to try the experiment." (Many sighs of relief and one of the professor's divine smiles.)

LIABILITY FOR INJURIOUS PATENT MEDICINES.—The decision of the Supreme Court of Georgia in reference to patent medicines, which we reported last week, is likely to attract widespread attention. It holds that the proprietor of a patent medicine is liable in damages for injury done to any person who takes it according to the directions. This liability does not fall upon the druggist who sells the medicine, but it attaches to the proprietor, even when the consumer buys not from him directly, but from the druggist. Here is the view the Court takes of the matter:—"These proprietary or patent medicines are secret, or intended by the proprietors to be secret, as to their contents. They expect to derive a profit from such secrecy. They are, therefore, liable for all injuries sustained by anyone who takes their medicine in such quantities as may be prescribed by them. There is no way for a person who uses the medicine to ascertain what its contents are ordinarily, and in this case the contents were only ascertained after an analysis made by a chemist, which would be very inconvenient and expensive to the public. Nor would it be the duty of a person using the medicine to ascertain what poisonous drugs it may contain. He has a right to rely upon the statement of the proprietor, printed and published to the world; and if, thus relying, he takes the medicine and is injured on account of some concealed drug of which he is unaware, the proprietor is not free from fault, and is liable for the injury thereby sustained." In rendering this opinion the Court said that it could find no American case in which the precise question had been decided before.

BLANK AND THE EPIDEMIC.

"THE influenza germ, we hear, is bounding on its way,"
Said every daily paper for a month from day to day;
"Has reached Berlin! Is now at Rome! To Copenhagen spreads,
And Frenchmen everywhere complain they have it in their heads."
And then the little paragraph to half a column grew;
Next day the *Standard* gave a col, and the *Telegraph* gave two;
For somebody at Hammersmith 'twas said had gone "Ateheew."

And soon Lord Salisbury kept his bed, and Mr. Labouchere
Prescribed for all the world in *Truth*, and helped along the scare.
Four columns now we got per day in *Times* and *Daily News*,
The *Pall Mall* sneaked prescriptions from Mackenzie, Clayton,
Roose.

And down went one in every ten in mansion and in mews;
Actors broke down, and clergymen discoursed to empty pews;
And, book-keepers being bad, no Christmas bills were sent,
While lots of tenants found themselves too ill to pay the rent.
And some thought whisky cold was best, and some said whisky hot,
But everyone agreed that it was wise to take a lot.

Now Mr. Blank, the pharmacist, whom all our readers know,
Was looking out for something live to make his physis go.
So when he read about the germ, says he, "I am on the track;
I'll offer something, first of all, that's bound to keep it back.
A cure for when it comes stands next; and, lastly, I will sell
A tonic, to take afterwards, until the patient's well."
With that the sly old fox withdrew into his private den,
And studied hard the *C. & D.* for twenty minutes, when
He wagged his head, sardonically smiled, and, seizing a quill pen,
Scribbled a handbill boldly headed, "Cure for Influenza;"
sent it to the printers, and ordered thousands ten.

So, when the scare had started, Blank had his handbills done,
And his shop presented the appearance shown in Figure 1.



FIG. 1.

That was a Monday; but, before the week was halfway through,
The passer-by would recognise what appears in Figure 2.



FIG. 2.

And this went on week after week, for people took all three;
The prophylactic and the cure, and the tonic (A, B, C).
And Blank himself was the only man, 'tis said, in all the town,
Who never took a single dose, and still he is not down.

Legal Reports.

PROSECUTION UNDER THE PHARMACY ACT.

ON the 8th inst., at the Edmonton County Court, before Judge Abdy, the Council of the Pharmaceutical Society sued Thomas Preston, of 6 Albion Terrace, Broad Lane, South Tottenham, to recover from him a penalty of 5*l.*, for trading as a chemist though not registered under section 15 of the Pharmacy Act, 1868. Mr. Flux appeared for the Society, and Mr. Avery for the defendant, whose liability to pay the penalty was admitted, but his Honour was asked to order the amount to be satisfied by small instalments.

Mr. Flux said he could not assent to that, as the defendant was carrying on an established business, and the proceedings had been taken in the interests of the general public.

Mr. Avery: Defendant is a poor man.

The Judge: It is all very well to say that, but these proceedings have been adopted to let the public know that they are being protected against illegal acts such as defendant has committed, according to his own showing, as he admits his liability.

Defendant: I was in business before the Act rendering registration necessary was passed, and I might have registered.

The Judge: Then why did you not register, and thus save yourself all this trouble?

Defendant: It was an omission on my part.

The Judge: That's no answer to the Legislature, who passed the Act for the benefit of the people at large. It is useless for Acts to be passed unless they are put into operation.

Defendant (with great excitement): They have singled me out, and wish to ruin me.

The Judge: You must not say that. They are simply performing their duty in putting in force an Act which was passed for the benefit of the community generally.

Defendant: It is the first case that has been brought under the Act.

The Judge: Don't tell me that, for I have tried several myself.

Mr. Avery: The defendant is a poor man, and if he is ordered to pay more than he can, there will probably be an execution, and while I admit the immense usefulness of the Press, by publishing proceedings of this kind, as a warning to others, yet if the punishment goes as far as taking the defendant's goods, the public will know nothing of that through the Press, and the effect will fall upon defendant alone.

Mr. Flux: If we don't get the money we don't, but I cannot agree to small instalments.

In the result judgment was given for the 5*l.* claimed, with costs, including solicitor and witnesses, payment 1*l.* a month, Mr. Flux insisting upon an undertaking that the offence should not be repeated.

Mr. Avery: Quite so. Defendant might have registered at the time of the passing of the Act, but omitted to do so.

SACCHARINE TABLOIDS AND THE SALE OF FOOD AND DRUGS ACT.

ON Wednesday at the Nottingham Summons Court Mr. R. Evans and Mr. W. A. Blain had before them two charges brought by the Inspector of Nuisances for Nottingham against Boot's Pure Drug Company (Limited) of Island Street, Nottingham. The company was summoned on the information of George Baines Willbond, inspector of nuisances, for having on December 20, 1889, unlawfully sold to the said inspector, and to his prejudice, a certain drug, to wit, twelve saccharine tabloids, which were not of the nature, substance, and quality of the article demanded. A second information by the inspector of nuisances had reference also to December 20, 1889, when the defendant company was charged with selling a certain article of food, to wit, twelve saccharine tabloids, which were not of the nature, substance, and quality of the article demanded by the inspector. Mr. Harris (from the Town Clerk's office) appeared to prosecute, and Mr. Stanger (instructed by Messrs. Wells and Hind) defended.

Mr. Harris said there were two cases, but he proposed to take them together.

Mr. Stanger said he had been discussing the question with Mr. Harris, and as both informations referred to a same alleged offence, he had no objection to taking both cases together.

Mr. Harris said that in the present case the purchase was made at the premises of the company at 159, Alfreton Road, by Mr. Willbond, Inspector of Nuisances. He went to the shop and handed in a prescription for saccharine tabloids. An assistant in the shop took the prescription, and the inspector left the shop, but returned subsequently, and the tabloids were handed to him in a box, upon which there was no label stating that there was any addition to the saccharine. A certain proportion of the tabloids were handed to the public analyst of the borough, who found that they contained 75 per cent. of milk sugar. There were two reasons why there was prejudice to the purchaser. First, the value of saccharine was about 4*s.* per oz., and milk sugar was about 6*d.* per lb., and therefore the purchaser only got 25 per cent. of the article for which he paid. The second ground was that of injury to the patient for whom saccharine was prescribed. Saccharine was taken by diabetic patients and by others suffering from certain diseases. The object was to give a sweet taste without there being an injurious effect upon the patient. Milk sugar or any saccharine matter independent of the drug saccharine would be injurious to the patient. If no injury was done to the patient, the question of the money value of the article still remained unanswerable, because the purchaser did not get value for his money. If an addition to the tabloids was necessary, the last thing that should be added should be milk sugar, where the special object of saccharine was to prevent injury to a patient by the addition of sugary matter.

Charles James Willbond, inspector of nuisances for the borough of Nottingham, said he went to Boot's branch shop on Alfreton Road, and tendered the prescription produced. He gave it to the assistant, and told him to make it up. The assistant told him that it could not be made up then, but if he called again in twenty minutes the prescription would be ready to take away. Witness called again in twenty minutes, and the tabloids were handed to him in the box produced. He paid 1*s.* for the whole of the prescription, and he received a receipt for it. Witness then told the assistant that he was a nuisance inspector, and that he had bought the saccharine with the intention of having it analysed. He divided the articles bought, and one part he gave to the assistant, one he kept himself, and the rest he handed to Dr. Truman, the public analyst. By Mr. Stanger: It was his intention that both the tabloids and saccharine which he bought should be analysed.

Dr. Truman, public analyst to the borough of Nottingham, stated that on December 20 last he received from the last witness a packet of saccharine tabloids, numbered 105. He analysed them, and on December 26 he handed in the result of his analysis. He found that the tabloids contained 75 per cent. of milk sugar, the other ingredients being saccharine and a little carbonate of soda, which was added to make it more soluble. The addition of milk sugar would have the effect upon a diabetic patient of increasing the glucose in the urine. That would increase the disease. He believed that the value of saccharine was about 4*s.* an ounce.

Cross-examined by Mr. Stanger: He had had several samples of saccharine tablets sent to him, each box being numbered. There were seven in all, and he was not aware from whom they came unless he was informed. Samples of saccharine had also been submitted, and the sample marked 106, which he had since found was from Boots', was pure. Pure saccharine was not easily soluble. Saccharine entirely by itself was soluble with difficulty in water. Saccharine was very powerful, and its sweetening properties were much greater than ordinary sugar. If one of those pellets was made simply with saccharine it would not be quite so convenient to carry about. Half a grain of saccharine was the usual dose, and he should consider it a proper dose. In the tabloids produced there was as nearly as possible half a grain of saccharine in each. Milk-sugar and ordinary sugar had the same effect upon the urine, but there was a difference upon the patient. The skimmed milk treatment was exclusively recommended by one man for diabetes, but he did not think it was generally recommended. About 350 grains of

milk sugar could be taken in a pint of skimmed milk. In each one of those pellets there was about a grain of milk sugar. The very sweetest taste he did not think could take more than four of these tablets in tea, coffee, or chocolate. Sugar of milk did not ferment so readily in yeast as ordinary sugar. He had heard of a gentleman of the name of McNaughton Jones, who had taken a great interest in saccharine, and he believed in the theory mentioned by him in the *Lancet*. It was invariably the case that the tabloids manufactured by the chief makers should contain half a grain of saccharine and a grain or a grain and a half of other matter.

Re-examined by Mr. Harris: Saccharine taken by a patient was perfectly harmless; there would be no injury at all to the patient.

Dr. Boobyer, medical officer of health to the borough of Nottingham, said that on December 20 he handed the following prescription produced to the witness Willbond:—"Pulv. saccharine, 1 dr., $\frac{1}{2}$ to 2 grs., to be taken with food. Tabloid saccharine, xii. One p.r.n." He had since seen the certificate of the public analyst. In his opinion milk sugar would increase the amount of glucose in the urine. He did not think that it was necessary that 75 per cent. of other matter should be used to make a tabloid. Those tabloids could be made with gum without any sugar of milk being added to it.

By Mr. Stanger: He was not a practitioner, and never had been in practice. He had been a house-surgeon at King's College. There was wide difference in the fermenting qualities of milk sugar and ordinary sugar. It was worse to give a patient ordinary sugar than milk sugar. Milk sugar was much less sweet than ordinary sugar. They were taught as students to avoid giving any sugary compound to a diabetic patient, but milk was given because it was found that its nutritious properties more than compensated for the amount of sugar in it.

This was the case for the prosecution.

Mr. Stanger, in defence, said it was a case which, as it was quite obvious, was of the very last importance to his client. Once they impeached the reputation of a person as to the purity of the drugs which he sold, they practically destroyed his business. The public would never go to a person who dispensed drugs which were not pure, and that was the reason why it was necessary the case should be threshed out to the utmost. He was not there to raise any technical point of law, but he came fortified by the evidence of medical authorities to satisfy the Bench that the firm had done nothing contrary to law, and that they had in no way sold a drug which was injurious to health. The Bench would understand from his cross-examination the line which he was about to take, and the case would largely depend on the weight which the Bench attached to the opinion of the medical gentlemen whom he was instructed to call. For that reason his preliminary remarks would not be lengthy. Before, however, he called any witnesses for the defence, he thought that, in order to clear the ground, it would be convenient to consider the charge which was brought against the defendants, and here he was glad to find that he was in accordance with Mr. Harris as to the law. He accepted what Mr. Harris said, that in order to make out his case he must show one of two things—either that this article was of less value from a commercial point of view in consequence of the mixture of foreign ingredients, and in that sense a fraud was committed on the public; or, supposing it was not of less value in a commercial point of view, and supposing in that sense there was no fraud, yet it was injurious to the health of a certain class of the public—diabetic patients. It had been laid down that the prejudice of the purchaser must mean that the article was inferior. In regard to the first point, he thought he could clear the way in a moment. The tabloids were sold by number, and not by weight. It was clear now, without his calling any evidence at all, that the common practice of all manufacturers—whether the articles were called tabloids, tablets, or discs—was to put $\frac{1}{2}$ grain of saccharine, and $\frac{1}{2}$ grain only, in each of them. They found that was not only a common practice, but a judicious one, because the sweetening properties of saccharine were so great, that if more than one $\frac{1}{2}$ grain were put in, the article would be made too sweet for a good many people, whereas if they were not sweet enough a man could use three or four. Starting from that point, what did they

find? It was a common practice in the trade to give one $\frac{1}{2}$ grain. When a person asked for a tabloid he did not expect that it would be made of pure saccharine. There was always a foreign ingredient introduced, sometimes consisting of 1, sometimes of 2 grains. He had a box which was sold by an extremely respectable chemist in the town, where the tablets came to as much as 5 grains each. In that case again there was only $\frac{1}{2}$ grain of saccharine, and they had therefore an admixture of a foreign substance to the extent of $4\frac{1}{2}$ grains. It would be inconvenient to have tablets merely $\frac{1}{2}$ grain in weight, but because a foreign ingredient was added they did not thereby lessen the commercial value of the articles. It was sold to the purchaser as $\frac{1}{2}$ grain of saccharine. The trader said, "It is a saccharine tablet, and I guarantee it shall contain as much saccharine as is needed." The question as to whether the ingredient was injurious was entirely different. When they compared the prices of these articles with the prices of other tablets in the trade, they found they were the same. They had the same preparation, and the only question left was whether the ingredients were injurious. It seemed so trifling a case so far as the commercial value was concerned, that he hardly expected the magistrates would want him to address them at any length upon that part of it. The tabloids were sold by number, and not by weight, and every single tablet contained the ordinary dose. Let him give an illustration. A person went to a chemist's shop and asked for an opium pill. He expected that the principle or active ingredient would be opium, and he would get what would be a proper dose of opium in a pill. If in addition to the opium there was some harmless substance introduced which made the pill more portable or slightly, how was the person injured thereby? It would be an entirely different matter if in this case it could be shown that the tabloids were sold as of pure saccharine. His friend Mr. Harris had shown quite the reverse of that. When pure saccharine was asked for it was found to be pure. Saccharine and saccharine tabloids were bought for the purposes of analysis. The saccharine bought as saccharine was found to be perfectly pure. The other point raised in the case was that on which Mr. Boot felt very strongly. If the prosecution were successfully maintained, he had been selling to the public an article recommended for diabetic persons as a substitute for sugar, with which was mixed something peculiarly unsuitable for such persons. He believed that the Bench would agree, after hearing the evidence, that if Mr. Boot had done such a thing he had acted in absolute ignorance. He had mixed this sugar of milk in accordance with medical advice supplied to him, supported by men of great eminence. It was partly a chemical question and partly a question of the general practice of medicine. He should call a very eminent chemist to give evidence. Mr. Boot himself and the duly qualified chemists he employed would also be called, together with a number of gentlemen who were perfectly well known to the magistrates as practitioners of large experience in the town. In their opinion this sugar of milk was widely different from ordinary sugar, and might be administered without injury to diabetic patients. They went further, and said that the amount was so trifling in this case that it was absolutely insignificant and inappreciable. He asked the bench to say that the sugar of milk made the tabloids more convenient, and helped solubility. If so, it was harmless, and if that opinion was correct there was an end of the case. Mr. Stanger referred to a number of the *Lancet* in which sugar of milk was mentioned, and also alluded to the fact that Dr. McNaughton Jones had absolutely recommended sugar of milk as being useful for tabloids. In view of those facts, supported by the gentlemen whom he should call, it would be a strong measure indeed to say that Mr. Boot had been defrauding the public by selling injurious drugs for the sake of his own pocket, thereby rendering himself liable under the section of the Act.

Dr. Otto Hehner, F.C.S., hon. secretary of the Society of Public Analysts, public analyst for Notts., South Derbyshire, West Sussex, the Isle of Wight, Derby, and Ryde, lecturer on practical chemistry at the Westminster Hospital, London, &c., was called by Mr. Stanger, and deposed that he had an extensive knowledge of saccharine tabloids as now manufactured by the trade. Saccharine was with difficulty soluble in water, and it was therefore very desirable that some substance should be added to make it more easily

soluble. It had become the universal practice to add bicarbonate of soda. The sweetening properties of saccharine were intense. It was desirable that some harmless substance should be added in order to make it more portable. It would be a very small tabloid which weighed only a quarter of a grain. It was the universal practice to deal with drugs in such a way that they could be conveniently handled. The tabloids and pellets which he had examined varied in weight from one to five grains, and they all contained half a grain of saccharine, which was the usual and proper dose. Half a grain of saccharine was equal to 150 grains of ordinary sugar, and 150 grains was the average quantity put in a cup of coffee or tea; hence half a grain was used in these tabloids. Sugar of milk was very much less fermentable than ordinary sugar. A tablespoonful of milk would contain very much more sugar of milk than these tabloids.

Mr. Stanger: Assuming that these tabloids were sold by number and not by weight, would the mixture of half a grain of sugar of milk be an adulterant?—The purchaser in my opinion gets the ordinary dose of saccharine, and this ordinary dose is in no way interfered with by the addition of another material.

The properties of the saccharine are not rendered in any degree less effective?—No.

The witness, continuing, said that at present saccharine was not in the British Pharmacopœia. There were no standard pellets. It was generally acknowledged that the pellets that were made did not consist of the pure drug. They were generally made up of something.

Cross-examined by Mr. Harris: The witness said he had examined the tablets made by a number of manufacturers, including Messrs. Allen & Hanburys; Burroughs, Wellcome & Co., London; Reynolds & Branson, of Leeds; and Mr. W. Smith, of the Market Place, Nottingham. He had not met with any tablets that were sold which were perfectly pure. No pure saccharine was sold in pellets. An addition was always made in order to make them more soluble.

Mr. Harris: Is the addition anything approaching to the amount in this case, 75 per cent.?—No, it is not.

Don't you think 75 per cent. a large addition?—No; I take it it is intended to give half a grain of saccharine. It makes no difference how mixed if the proper drug is given.

If a man buys twelve tabloids, and the addition is 75 per cent., you say he will be prejudiced? If he gets the right amount of saccharine he is not prejudiced. It makes no difference whether the doctor prescribes the medicine to be given in a 1-oz. or a 12-oz. bottle, supposing the medicine is there.

Witness, in reply to further questions, said he found in the case of Messrs. Allen & Hanburys' tabloids, they each contained a third of a grain of bicarbonate of soda. The tablets of Burroughs, Wellcome & Co. contained a little over a quarter of a grain. Those of Messrs. Reynolds & Branson contained over half a grain, and Mr. Smith's contained nearly $4\frac{1}{2}$ grains of other material.

Mr. Harris: The general addition is from a third to a half grain in the case of the great makers? Yes. Witness added, pellets were often sold of very much smaller size than in this case.

Replying to Mr. Harris, who asked as to fermentation of sugar of milk, whether it was not a fact that it depended a great deal upon the stomach of the patient, witness said that he would rather reply to strictly chemical questions. Sugar of milk was less subject to fermentation generally.

Mr. Harris: Is it not a fact that if any animal decomposition was going on in the stomach it would affect a man injuriously? It is hardly a question of injurious effect, seeing that all our food undergoes fermentation in our stomach. The fermentation of a few grains of sugar of milk would make very little difference. Witness added that 75 per cent. seemed a large amount, but it meant only a few grains indeed; at the outside, 10 or 15 grains.

Mr. Stanger intimated that he had six medical gentlemen in court whom he could call as witnesses.

Dr. Brookhouse, who was then examined, said he should describe sugar of milk as an article of food or a remedial agent. It differed from ordinary sugar, and was less liable to fermentation. In the case of a diabetic patient, where ordinary sugar was prohibited, sugar of milk might be given to the extent of $\frac{1}{2}$ oz. without any injurious effect. There were 24 grains of sugar of milk in 1 oz. of milk, or about

5 per cent. There were 480 grains in all in 1 oz. of milk. It might be given to the extent of 30 grains a day without the least injury. The tabloids could not do any injury, even in the case of diabetic patients. He had had experience of the treatment of diabetes by the skim-milk method. In a number of cases it answered very well. He thought Dr. Bobbyer hit the nail on the head when he said that a person suffering from diabetes needed to be treated according to his circumstances and condition. There were some with whom the milk treatment did not answer. There were others with whom it answered extremely well. A person was not worthy of the name of diabetic who passed 50 grains of sugar in twenty-four hours. He did not see how they could make 50 grains out of 15.

Cross-examined by Mr. Harris: The question whether if sugar given to a diabetic patient increased materially upon the amount at first administered was a very difficult one to answer. It was a question of vital chemistry, upon which he was not prepared to give an opinion, neither was anybody else. They might keep a patient upon a strictly animal diet, but they would be able to take sugar from his urine, though where that sugar came from no chemist or physician could answer. It was a question of chemistry. Were they to give an ounce of sugar to a patient and kept him alive for a week, very likely he would pass more sugar during twenty-four hours than he took into the system. He had been associated with Dr. Pavey in experiments upon lower animals. That doctor held certain opinions then which he might have since changed. He should unhesitatingly say that the quantity of milk sugar found in those tablets, to the extent of 5grs. to 15grs., would not injure a diabetic patient.

Dr. H. R. Hatherley, medical practitioner, of Nottingham, said he agreed with Dr. Brookhouse's opinion. He did not think the amount of sugar of milk contained in each tablet would injure a diabetic patient. He should look upon so small a quantity as quite unimportant. Ordinary sugar was more injurious to a diabetic patient than milk sugar.

Mr. Stanger: Unless a patient took these tabloids by the bucketful they would not do him any harm?—No one would like to take so much as that. (Laughter.)

Cross-examined by Mr. Harris: In his opinion to take the amount of 75 per cent. of milk sugar would be in no way injurious. He would not measure sugar by the ounce but by the grain with regard to its injurious effects. He believed that the tabloids in question were harmless.

Mr. Stanger said he had a number of other medical gentlemen present who were prepared to give evidence of a similar character to that of the witnesses he had already called. He did not know whether their worships would like to hear them.

Mr. Evans said that the magistrates were satisfied with the evidence they had before them, and had determined to dismiss the case.

Drs. Chas. Vernon Taylor, F. Howitt, and Whyatt were in court to give evidence for the defence.

BANKRUPTCY REPORTS.

Re JOHN ROBERT EVANS, The Pharmacy, Vale Street, Denbigh, Chemist.

THE adjourned public examination of this debtor was fixed for January 9 at the Bangor Bankruptcy Court, before Mr. Registrar Lloyd Jones, but as the bankrupt did not appear the Registrar adjourned the examination *sine die*. The assistant Official Receiver (Mr. Hugh Roberts) stated that the accounts ordered by the Court had been rendered by the bankrupt, but that it would be necessary to examine him upon them.

Re Abraham Lccoffre, late of 64 Queen Victoria Street, Perfumer.

THIS bankrupt, who traded under the style of "E Rimmel," attended last Monday before Mr. Registrar Brougham, at the London Bankruptcy Court, for public examination. Full particulars of his failure have been published. The debtor admitted that he was insolvent when he bought the

business, but he anticipated a successful trading, and hoped to thus pull round. The business was managed by his wife, who had no previous business knowledge; he also had no experience in the perfumery line, but did not consider that necessary to successful trading. The business was originally carried on at Cornhill, where it was successful. About ten months before the purchase it was removed to the Queen Victoria Street premises, and the connection was, in consequence, partly lost. The name of "Eugene Rimmel" was kept up, and when he found he was not trading successfully, he resold the business to Mr. Rimmel for 772*l.*, receiving a net sum of 314*l.*, which had been paid into the Court. There were very few trade debts, as he had dealt chiefly with Mr. Rimmel. The private expenses were large, as he had allowed 50*l.* yearly to his mother-in-law, and 5*l.* a month to his own mother and sister. When purchasing the business he examined the books, and thought the trading could be made to realise a profit, although none appeared to have hitherto been made. He made an offer of 5*s.* in the pound to the creditors last October, but the proceedings fell through. Part of the liabilities had been incurred on behalf of friends for whom he stood security. No consideration was received at the time by him; but he did not think those liabilities would be a claim upon the estate, as they would probably be met by the other parties. He raised 50*l.*, in order to pay the composition, by giving a bill of sale over his furniture. The bankrupt was allowed to pass.

BANKRUPTCY OF A STOCKPORT CHEMIST.

THE first meeting of the creditors of Mr. Thomas Hart, pharmaceutical chemist, 72, Lancashire Hill, Stockport, took place last Friday, at Stockport. The debtor's statement of affairs showed liabilities 831*l.* 2*s.* 7*d.*, and assets 183*l.* 0*s.* 9*d.*, including 20*l.* 6*s.* 3*d.* preferential claims, leaving 162*l.* 14*s.* 6*d.* to rank for dividend. The Official Receiver reported:—"The debtor states that he began business as a chemist and druggist in 1880, with 350*l.* as capital, 150*l.* of which he borrowed from his wife. He professed to have kept a day book, ledger, and rough cash book, but only the day book is posted up to the date of the receiving order. At the date of the receiving order he was in possession at 72, Lancashire Hill, Stockport, under an execution. The debtor states that he first became aware that he was insolvent twelve months ago, but continued trade in the hope of retrieving his position. The debtor says he has no intention of making any offer to his creditors by way of composition or scheme of arrangement." In the assets the furniture is set down at 30*l.*, but the Official Receiver (Mr. A. C. Procter) explains at the end that the most valuable part of this was claimed by Mrs. Hart, whose claim, so far as the result of the investigation went, he did not see that he could dispute, for the furniture was given to her by her mother under the Married Women's Property Act. Mr. Joseph Barratt, the largest creditor, expressed sympathy with the debtor, and offered to lend him a sum of 50*l.*, in addition to 50*l.* previously promised, to give him a lift if he could get a few friends to also assist him. The Official Receiver remarked that the debtor should not have gone on with his business, knowing his position. The meeting was adjourned. The debtor came up for public examination before the deputy registrar (Mr. H. D. F. Dobson) on Thursday, but, as the Official Receiver was not prepared to proceed, the examination was adjourned till February 6.

STROPHANTHUS A LOCAL ANÆSTHETIC.—Investigations made by Drs. H. A. Hare and G. E. de Schweinitz (reported in the *Therapeutic Gazette*) show that an aqueous decoction of oil-freed strophanthus seed produces complete anæsthesia of the cornea and conjunctiva of animals, but not of man. Strophanthin has a similar effect.

AN American contemporary, commenting on Dujardin Beaumetz's statement that strophanthin has an entirely different action from the drug, so that he strongly favoured the use of the tincture only, adds, "Yet it is desired to base the value of the tincture upon its percentage of alkaloid (*sic*), we suppose." Why suppose so? Strophanthin is not an alkaloid.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, at any time within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

From the "*Trade Marks Journal*," January 8, 1890.

CREO; for goods in Class 2. By R. Weaver, 24 High Holborn, E.C. 92,440.

HEALTH GUARD, and design of outspread wings; for chemical substances used for sanitary purposes. By R. Hannan, 42 Bath Street, Glasgow. 92,871.

DEMON; for a preparation for destroying insects and cleansing plants. By Deighton & Smith, Bridgnorth, Salop. 93,387.

"SAINT-RAPHAEL" and other wording, on artistically designed square label; for medicated tannin wine. By Clément et Cie, 90 Piccadilly, London. 76,176.

LANO-CREOLIN; for a preparation for use in pharmacy and medicine. By Jeyes' Sanitary Compounds Company (Limited), 43 Cannon Street, E.C. 92,050.

Sketch of a sea-plant, with monogram; for medicinal preparation and ointment. By J. Lee and S. Budgett, trading as The Curative Zoophyte Co., 93 West End, Clevedon. 92,997.

Design showing a miner's lamp, with the word "Safety" on streamer; for a patent medicine. By The Medicus Company, 20 York Street, Newcastle-on-Tyne. 93,396.

"LAYTON'S EFFECTIVE EMBROCATION," with sketch of a cannon, and wording on label; for an embrocation. By Layton, Son & Company, 57 Nunhead Grove, Nunhead, Surrey. 93,407.

"LACTOMEL"; for compound of cod-liver oil and milk. By Smith & Govan, 109 South Street, St. Andrews, N.B. 93,522.

"TOMMY BOTTLE"; for a medicinal preparation. By A. H. Holden, 30 Eldon Street, Barnsley. 93,488.

"DENTICURA"; for a medicine for human use. By J. J. Phillips, Ryecroft Pharmacy, Ashton-under-Lyne. 93,500.

"ARISTOL"; for new pharmaceutical product. By The Farbenfabriken, vormals F. Bayer & Co., Elberfeld, Germany. 93,538.

Monogram of company; for mineral and aerated waters. By The Rhondda Valley Aerated Water Company (Limited), Trearw Road, Ystrad, Rhondda Valley. 93,635.

"GLYCERINE SOAP," and other wording, on ornamental label; for common and perfumed soap. By A. & F. Pears, 71 to 75 New Oxford Street, W.C. 92,912-92,913.

"KLOSKI"; for a compound for cleaning clothing, &c. By Ellen Hunt, 94 Uttoxeter New Road, Derby. 93,250.

"FAULTLESS SOAP" and signature; for soap, oils, matches, &c. By G. A. Smith, Alma Place, Dudley. 93,390.

"THE COURT"; for toilet articles except scents. By Matilda Lane, trading as John Leon, 23 Maida Hill West, London. 91,063.

"BEAUTY'S SECRET," other wording, and portrait of lady in evening dress; for toilet soap. By A. Pope, Taunton Lodge, West End Lane, West Hampstead. 92,490.

"ROCKET"; for perfumery and toilet articles. By D. C. Keeling & Co., Blundell Street, Liverpool. 92,958.

"THE ALEXANDRA," and other wording on label; for liquid dentifrice. By W. Ziemer, 7 Colville Gardens, Bayswater, W. 93,218.

- "IDREE-LEE"; for hair-wash and toilet waters, including hair dye. By F. S. Penkethman, 16A, Piccadilly, Manchester. 93,539.
- "HOUSEWIVES' POLISHING POWDER," and monogram; for polishing powders and pastes. By J. E. Wenn, Broome Cottage, Broome, Essex. 92,964.
- "ALBUMIGUM," and wording on oval label; for a mucilaginous preparation. By Kay Brothers, Lim., St. Petersburg Mills, Stockport. 93,033.
- "ESIA"; for machinery for manufacture of aërated and mineral waters. By Dan Rylands, Stairfoot, Barnsley. 93,413-2156 S.

From the "Trade Marks Journal," January 15, 1890.

- "MITRE," with sketch of a mitre; for chemical substances, and vegetable, animal, and mineral substances used in manufactures. By the Australian Glass Company (Limited), 74 Pitt Street, Sydney, N.S.W. 93,447-93,448.
- "LIVERINE"; for chemical substances for veterinary, sanitary, and other purposes. By the Liverine Company, Great Grimsby. 93,703.
- Design of horse and lion rampant on shields; for chemical substances used in medicine and pharmacy. By Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. 92,542.
- "CHESTICON," with circular device and wording on label; for a medicine for bronchitis, asthma, &c. By Ben Phillips, 96 Marchmont Street, London. 93,453.
- "ANGEL-WHITE," and "Blackwell's G.G.B. Brand"; for French chalk and similar substances. By G. G. Blackwell, 26 and 27 Irwell Chambers, West Fazakerley Street, Liverpool. 87,997.
- Pictorial sketch of Oriental hunting scene on oblong label; for raw or partly-prepared vegetable, animal, and mineral substances. By the Actien-Gesellschaft Für Anilin Fabrikation an der Freptower Brücke, Berlin. 93,157.
- Design representing Britannia and America joining hands, and wording; for artificial teeth and dental appliances. By L. H. Robinson, trading as the Anglo-American Dental Company, 16 and 17 Poultry, E.C. 93,850.
- Design of a ship and globe; for food substances. By Clarke, Nickolls & Coombs (Limited), Hackney Wick, Middlesex. 70,604.
- "OVINE"; for a condiment for poultry. By T. A. Weatherstone, 137 High Street, Camden Town, London. 84,770.
- "KINGFISHER BRAND"; for food substances. By R. B. Green & Co., Victoria Street, Liverpool. 86,188.
- "MAGOG"; for food substances. By the London Restaurants (Limited), 27 Cheapside, E.C. 93,466.
- "CROSSMYLOOF FACTORY," and signature; for food substances. By R. Thomson & Son, Crossmyloof Loaf Factory, Langside, Renfrew. 93,548.
- Design of three circles forming triangle, and wording; for mineral and aërated waters. By N. Button, 28 High Street, Hounslow. 93,297.
- "THOS. SMITH"; for mineral and aërated waters. By T. Smith, Carlton Street, Castleford, Yorks. 93,496.
- "J. WOODS & CO, ALDERSHOT"; for mineral and aërated waters. By John Woods, trading as J. Woods & Co., 32 Union Street, Aldershot. 93,779.
- A five-barred gate; for common and perfumed soap. By Tyson, Richmond & Jones, 6 Blackstock Street, Liverpool. 93,648-93,649.
- "ORANGE BLOSSOM," with sketch of an orange with blossom, and wording on label; for a perfume. By J. B. Harris, 18 Broad Street, South Molton, Devon. 93,646.
- "PALLIGGENSIAS"; for preparation for colouring the hair and face. By W. H. Gabell, trading as Hopgood & Co., 46 and 47 East Street, Brighton. 93,754.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purpose.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., January 16.

BUSINESS has not been so brisk generally as was expected before the opening of the year, at least in drugs and fine chemicals; but in heavy chemicals and drysalteries there is a distinct improvement noticeable. Turning to these articles, we have to note advances in caustic soda, soda ash, soda crystals, Montreal potashes, and benzol, while the market for bleaching powder and borax appears exceedingly firm. Among fine chemicals cream of tartar and tartaric acid show a dull market, but morphia is looking decidedly better, and there is a talk of advancing the price of strychnine. Quinine has been one of the leading articles of the week again, and closes at a decided advance. In drugs, raw camphor remains quite firm, if not a little higher. Opium has been excited, and is dearer; saffron is also quoted better, and there is some advance in star-anise-oil and cassia oil, while menthol is no longer to be had at last week's quotations. The following drugs are lower, or flat:—Japanese peppermint oil, Tinnevely senna, American spearmint oil, gum myrrh, and castor-oil seconds. The cinchona sales resulted in a marked advance. Higher prices are also quoted for dark animi gums, turmeric, olive oil, and cocoanut oil, but petroleum and pale animi gums are lower. Shellac irregular, and, after declining at the public sales, closes rather firmer at the call.

THE GENERAL PRODUCE BROKERS' ASSOCIATION held their annual meeting on Monday, January 13, at the Commercial Sale Rooms. Mr. N. J. Dalton occupied the chair, and there were about twenty-eight members in attendance, including Messrs. Johnson, Hendry, W. H. Green, Samuel Piggis, H. F. Monsarrat, Clement Colman, Chas. Christey, Stansbury, E. S. Vanhouse, &c. The secretary of the association, Mr. R. J. Hossack, read the report of the previous meeting, and the following gentlemen were then unanimously elected to serve on the committee during the present year:—Messrs. Parsons, Johnson, Hendry, Sargeant, Wilson, and Ald. Gray. The statement of accounts for the year 1889 showed a substantial increase in receipts over the preceding year, the subscriptions having yielded 105 $\frac{1}{2}$ %, against 91 $\frac{1}{2}$ 7s. in 1888, and the appeal fees in arbitration cases 100%, against 85%. The total expenditure—salaries, rent, and sundry expenses—figures up to 144 $\frac{1}{2}$ 11s. 9 $\frac{1}{2}$ d, leaving a balance in the treasurer's hands of 280 $\frac{1}{2}$ 10s. 11 $\frac{1}{2}$ d, against 221 $\frac{1}{2}$ 2s. on January 1, 1889. During the last year the membership of the association has increased by ninety, and at present nearly every firm of produce brokers in the City is represented among the members of the association. The experience of the past year also reveals a growing tendency on the part of disputants to adopt arbitration in order to settle points of difference. The report having been adopted, Mr. Walton (in the absence of Mr. Price) moved the following resolution, of which the latter gentleman had given notice:—

That members of the Council of the Association, when called upon to act in cases of appeal on arbitration, should receive a minimum remuneration of one guinea for their services, to be paid out of the funds of the Association.

Mr. Green seconded this motion, and referred to the hardship that members of the council should occasionally have to spend some hours of their time in going to distant wharves to inspect the bulk of goods—a proceeding often necessary, because the sample could not always be depended on as a basis for the arbitration—and that they should not receive any remuneration for this trouble, whereas the arbitrators in the first instance were paid.

The resolution was then put to the vote and adopted, twenty voting for it and none to the contrary.

Mr. S. Figgis then proposed that the rules of the association should be altered by the addition to one of them of a clause providing that the committee, upon the receipt of a requisition signed by at least eighteen members of the association, should have the power to admit an individual or firm into the membership of the association. Hitherto the rules demanded that a new-established firm of brokers, or a partner in a firm commencing business on his own account, should wait for at least twelve months before being eligible for membership of the association. This rule was adopted to prevent "mushroom firms" from claiming admission into the association. The alteration (seconded by Mr. H. F. Monsarrat), which was admittedly asked for in the interests of a recently-established firm of Mincing Lane brokers, was adopted *nem. con.*, twenty-five hands being held up for it. It was then decided to maintain the annual subscription and the entrance fee for the present year at 21s., and the proceedings concluded with a vote of thanks to the chairman.

ACID (BORACIC) in very good demand, with sales at full prices.

ACID (CITRIC) is exceedingly quiet, and there would be no difficulty in buying at 1s. 3½d. from second hand, or perhaps a shade less. The makers ask from 1s. 3¾d. to 1s. 4d. per lb.

ACID (OXALIC).—Dull at 3d. per lb.

ACID (TARTARIC) continues very quiet at 1s. 3¾d. for *English* and 1s. 3½d. to 1s. 3¾d. for *Foreign* brands, but there is no business doing in the article. Attention is called, however, to the undoubted fact that the French vintage, which furnishes the bulk of the tartar material, has been the smallest for very many years, and that the wine production in Italy, Spain, and Portugal has also been below the average. When the result of the 1876 vintage in France, which was one of the largest on record, was known, tartaric acids still remained worth 1s. 4½d. to 1s. 5½d. per lb.

ACONITE ROOT.—At Friday's drug sales 10 bags Japanese root sold at 20s. per cwt., subject to approval.

AMBERGRIS.—We hear it said that for a parcel of fine white ambergris, bought in at 180s. per oz. at the last auctions, 172s. 6d. per oz. has since been offered and refused.

ANISE.—Our attention is called to an inaccuracy in our last report. *Russian* seed, which we mentioned as sold at 15s. 6d., was disposed of at 18s. 6d., and the *Spanish* seed at 25s. was damaged. Sound seed brought 31s. per cwt. *Star anise* not offered on the spot, nominal price 110s. per cwt.

ANTIMONY very firm. Regulars, 77l. to 80l. Japanese crude quite nominal at 70l.

ARSENIC.—From at 13s. 3d. to 13s. per cwt. for a best white powder.

BALSAMS.—*Copaiba* in very small supply for good Maranham, which is held at 2s. 8d. to 2s. 9d. per lb. *Peruvian* very dull and lifeless, the nearest price named is 3s. 9d. per lb., but less than that has recently been accepted. *Tolu* reduced into small compass, at 1s. 5d. to 1s. 6d. per lb.

BENZOL has sharply advanced this week, and 90-per-cent. has been up as high as 4s., but probably 3s. 10d. or 3s. 11d. would buy a little now; 50-per-cent. has advanced to 3s.

BLEACHING POWDER.—Very firm, and on the Tyne 5l. 7s. 6d. to 5l. 10s. is quoted; in London there is also a good demand.

BORAX.—The markets hold firm at 30s.; second-hand lots somewhat difficult to procure at 28s. 9d. to 29s.

CAMPHOR (RAW).—Four shipments of camphor have arrived from Japan and China since our last report. They amount to 355 packages in the aggregate, but the greater part of this is reported to have gone into consumption already. A small business (five tubs) on the spot is reported at 9l. per cwt., but, if this is correct, it is doubtful whether the quotation has any significance. For December shipment a parcel was offering yesterday at 135s. per cwt., and there were then buyers at 130s., e.i.f. terms; but we hear that to-day 135s., e.i.f., has been paid for 150 piculs.

CAMPHOR (REFINED).—The makers are very firm at 1s. 10d. for *English*. We hear that some foreign has sold at 1s. 8d. for bells, but have not been able to confirm this report.

CHAMOMILES.—Very quiet, and no business reported.

CINCHONA.—The first auctions of the year were held on Tuesday, and consisted of:—

	Packages	Packages
Ceylon bark	1,802 of which	1,517 were sold
East Indian bark ..	252 "	257 "
Java bark	264 "	264 "
South American bark	1,607 "	193 "
Total	3,935 "	2,228 "

The demand was a very good one from the beginning, and improved slightly towards the middle of the sales. The parcels offered for sale included but little bark of very inferior character, the bulk being of medium richness. The general opinion is that the prices paid show an improvement over the last December sales of fully 10 to 15 per cent., though in some quarters it is even said that the advance frequently exceeded the latter figure. We should put the unit value at 2d. per lb. The following are the approximate quantities purchased by the principal buyers:—

	lbs.
Agents for the Mannheim and Amsterdam works ..	179,412
" the Brunswick factory	113,292
" the French, American, &c., works	9,5456
" the Frankfort & Stuttgart works	54,015
Messrs. Howards & Sons	35,319
Agents for the Auerbach factory	17,490
Sundry druggists	21,868
Total quantity sold	516,852
Bought in or withdrawn	241,795
Total amount of bark catalogued	758,647

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it, firms who buy a small quantity of bark by weight frequently taking the richest lots, and *vice versa*. An analysis of the catalogues gives the following prices for sound bark:—

CEYLON BARK.—*Original*: Red varieties: Fair branchy chips, 2d. to 3d.; dusty to good bright stem chips, 3½d. to 4d.; common pale dull chips, 1d. to 2d.; fair shavings and chips mixed, 2½d. to 3d.; spoke shavings and root mixed, 2½d.; good bright spoke shavings, 4½d.; dull to fair bright root, 3d. to 5d.; one parcel of very rich root, 9d. per lb. Yellow varieties in very small supply: Fair, but rather small, branchy chips, 3½d. to 4d.; medium stem chips, 4½d.; shavings and root mixed, 6d. per lb. Grey barks were well represented: Dull and weak to good branchy chips, 2½d. to 4d.; fine strong ditto, 6½d.; chips and shavings mixed, fairly quilly, 3d. to 3½d.; for one lot of fine bold chips 10d. was refused as being ½d. below valuation. Several parcels root, good to fine bold, almost free of dust, sold at 6d. to 7½d. per lb. *Renewed*: Red varieties: A large quantity of ordinary weak chips at 2½d. to 4d.; medium ditto at 4½d. to 5d.; fine bright rich chips, 6d. to 8½d.; good branchy spoke shavings, 6d. to 7½d.; chips and shavings mixed, 6½d. to 8½d.; fine bold stem chips, 9½d.; yellow dull chips, 3½d.; mixed chips and shavings, 8d. per lb. Good bright to fine grey chips, 6d. to 9½d.; spoke shavings, 7d. to 9d.; small dull chips, 7d. to 5½d. per lb.

EAST INDIA BARK.—*Original* good red stem chips, mixed with thin branchy quill, 3d. to 4½d.; fair chips, 2½d. to 3d. per lb. Yellow chips and shavings mixed, 3½d.; dusty root, 3½d. per lb. Grey, fairly good, quilly chips, 3d. to 4½d.; fine ditto, 6d. to 7d.; spoke shavings and siftings, 5d.; good grey shavings, 7½d. per lb. *Renewed* small dull red chips, 3½d. to 4d.; good bright ditto, 6½d. per lb. Fine but dusty renewed Ledger chips, 10½d. to 11d.; ordinary dull grey chips, 4d. to 4½d.; several lots of fine, rich, quilly grey chips, 9½d. to 11½d. per lb.

JAVA BARK.—Red chips, fairly good, 3d. to 4d. per lb.; yellow, fairly good to fine strong quilly chips, Calisaya and Ledger, 3½d. to 9d. per lb.; root, 3½d. to 8d. per lb.

SOUTH AMERICAN BARK.—Of cultivated Bolivian *Calisaya* bark, of which 419 bales were offered (52,520 lbs), 16,060 lbs. sold at 6½d. to 8d. for rather irregular and split; 9d. to 10d.

per lb. for good bold silvery quill; and at 1s. 1d. per lb. for an unusually fine and rich parcel. Two bales damaged *Carthagea* are held at 6d. per lb., and an offer of 4d. was refused. Seventy bales soft *Colombian* (1883 import) are priced at 4d. per lb. Of 1,090 packages *Cuprea*, partly of old import, 27 common and dull sold at 1d. per lb.; for the others bids from 2½d. to 5½d. per lb. were made, and refused. A rather heavy quantity of *Red bark* was shown, but it was mostly of very inferior quality indeed, and almost colourless; 21 bales sold at 5d. to 1s. 6d. per lb., but for a better parcel of fair reddish colour, but very broken, 8s. to 10s. per lb. is asked, which seems a very high price.

We understand that several parcels bought in during the auctions have since changed hands at full prices. Our imports from all quarters since last Thursday are 753 packages.

COPPER (SULPHATE).—On the spot 23l. 10s. is the owners' quotation; in Liverpool, 24l. For early delivery there was very little to be had; forward offers at 23l.

CREAM OF TARTAR quiet and drooping. Best white first crystals may be quoted at 107s. 6d. to 108s. per cwt.

CUBEBS are firmly held, with small sales of genuine berries up to 26l. 10s. per cwt.

CUTCH.—From Liverpool a very firm market is reported, with sales at some advance in price, but the business is mostly on private terms.

GALLS (TURKEY).—There has been business done in good blue *Bassorah* galls up to 57s. 6d. per cwt.

GALLS (CHINA).—The latest sales of China galls on the spot were at the rate of 75s. per cwt., and there is not much available in that position, but for arrival the article is decidedly easier to buy, ordinary shape having been done at 65s., and plum shape (which does not seem to be wanted any longer) at 62s., "c.i.f." terms. At auction 100 cases good China plums were bought in at 80s. per cwt. There was no bid. We have heard of no further sales during the last few days.

GAMBIER.—*Block* remains very firm, and, there were sales at the end of last week at 26s. 6d. for Feb.-March. At auction on Tuesday 216 bales were disposed of at 27s. 6d. to 28s. per cwt. "without reserve." The Liverpool market is firm. *Block* is dearer, and has been sold at 27s. 1½d. per cwt. for January, and 27s. for January-February shipment.

GUM ARABIC.—We hear of some business in fair *Ghatti* gum at 35s. per cwt. Among our imports this week we notice 8 cases from Southern Russia.

GUM BENJAMIN.—At last Friday's drug sales several parcels were sold at fair prices; *Siam*, slightly woody, blocky siftings at 87s. 6d. to 97s. 6d. per cwt., the former being a very low price; a rather better lot at 90s. to 92s. 6d.; *Sumatra*, fine white almondy seconds, slightly false packed, 8l. 17s. 6d. to 9l.; good almondy centres, quarter false packed, at 7l. 17s. 6d. to 8l.; and fair *Penang* seconds, rather dark corners, at 7l.

GUM MYRRH.—Twenty-two barrels sold at 37s. to 38s. per cwt. for fair thin brown, and 36s. for half candied pale.

GUMS (VARNISH).—At to-day's auctions Manila *Copal* gum was exceedingly quiet, with small sales of bold dark to fine pale amber, 34s. 6d. to 55s.; *Olibanum*, dull, fair pale to fine pale drop, 46s. to 58s.; *Cowrie* firmly held, with very little business; *Animi* sold at a reduction of about 10s. on pale and amber sorts, but red gum was from 5s. to 10s. dearer.

INSECT FLOWERS.—At present the position in Trieste appears to be very quiet, and the prices are: Open flowers, 85s. "c.i.f.," half-closed, 102s. "c.i.f.," closed, 120s. "c.i.f." A few weeks ago several American firms sent over orders, but these could not be executed. It is expected that if they should now be placed there may be a strong movement.

IODINE.—There is no news whatever yet about the renewal of the convention, and prices for this article, as well as for iodides, are practically non-existent. We hear that there have been offers in circulation at about 6d. per oz. from the Continent, but it does not appear that anyone cares to buy.

IPECACUANHA is reported firm, with sales at the last auction prices. The time for the arrival of the new crop is now near, and we hear that two rather heavy lots are coming forward, one consisting of at least 150 packages. They may arrive presently *via* Antwerp.

LEAD (ACETATE) firmly held at convention prices.

MENTHOL.—We hear of a good deal of business on the spot this week, and there is not much offering now in that position. *Cocking's* brand has been advanced to 12s. 6d. for first, and 11s. 6d. per lb. for second quality; and we hear of sales of fair native brands at 10s. per lb. For March delivery there were offers at 8s. per lb., "c.i.f." terms, but there do not seem to be buyers. There is some report from Hiogo that the native Japanese have formed a ring to buy up the whole of the last crop, which is said to have been exceedingly small. This rumour is given for what it is worth.

MERCURIALS.—Rather weak, on the basis of 3s. 7d. for *Calomel*. We hear of business in the German makes, the introduction of which we recently mentioned.

MORPHIA.—The makers are very firm, owing to the strong position of opium, at 5s. 6d. for powder and 5s. 9d. for crystals in wholesale quantities. Smaller lots of crystals are not offered below 6s. per oz.

MUSK.—We have not heard of any business in *Tonquin* pod musk since the last auctions. On Friday several parcels of this description were bought in; medium to bold well-shaped and trimmed pods, blue skin and underskin, at 92s. 6d. per oz. nominally. The artificial musk to which we have repeatedly alluded is now offered on the market. It appears in small white crystals, and the odour is certainly that of musk, though by no means of the strength of the best natural article. The price is variously quoted at 55s. to 65s. per oz. We hope next week to report more fully concerning this article. Since our last report we have received 2,000l. worth of musk from China, and 1,100l. from India.

OIL (CASTOR).—In Liverpool, owing to the recent heavy arrivals, the market is still weak, and the nearest spot quotation for good *Calcutta seconds* cannot be called higher than 31½d. per lb. In London 10 cases good pale *First Calcutta* sold last Friday at 4½d. per lb. In finest *Italian* medicinal oil sales at 5½d. per lb. are, however, reported, and finest *Trenoh* ditto is quoted at 5½d. per lb.

OILS (ESSENTIAL).—*Star-anise* oil is very firmly held, with an inclination towards higher rates. We have heard of business at 6s. 2d. to 6s. 2½d. on the spot, while holders are inclined to ask 6s. 3d. per lb. These prices are low compared with the "c.i.f." quotation, which comes at 6s. 1d. per lb. to-day. *Cassia* oil: the last "c.i.f." sales are given as 3s. 6d. per lb.; on the spot we would call 3s. 8d. to 3s. 9d. the nearest quotation. American oil of *Peppermint*, steady but quiet, at 11s. 1½d. per lb. The price of *Cocking's* Japanese oil has been reduced 6d., to 5s. 6d. per lb., owing to the good prices of and large demand for menthol. Of H. G. H. *Spearmint* oil, five cases were sold last Friday at 8s. to 8s. 2d. per lb., without reserve, which shows a considerable drop on the last private quotations.

OILS (VARIOUS).—*Cocoanut* oil. Fine Ceylon oil on the spot exceedingly scarce, and worth 24s.; *Cochin*, on the other hand, is quite quiet and neglected, nominally 26s. 6d. *Mauritius*, 24s. 6d. per cwt.; cotton-seed oil casier. Raw on the spot, 19s. 3d.; refined, 21s. 6d. to 22s.; *Hull* raw, 18s. 6d.; naked, 20s. *Linseed* oil has been very firm, with good business in all positions, but is slightly lower at the close; 20s. 6d. to 20s. 9d. is the nearest price; *Hull* 19s. 10½d. naked; *Oliver* oils are all firmer and rising; *Spanish*, 38l. to 38l. 10s., *Messina*, 38l.; *Mogodore* sold up to 36l. 10s. *Palm* oil, fine Lagos, 25s. 6d. *Petroleum* much lower and closing quiet. American, 5½d. to 6d. *Russian*, 5½d.; *Rape* oil unchanged, brown 31s., refined 32s. 6d. *Turpentine* has been in better demand, but is lower at the close of the market. American spirit, spot, 33s. to 33s. 3d.

OPIMUM.—Last week the Smyrna market was very excited, and in London prices advanced in sympathy. The tone now appears somewhat easier, though a good business, partly for American account, is reported at full prices. Fair *Salonica* seconds are reported sold at 13s., and we also hear of business in manufacturing *Seconds* at 12s., and in firsts at 13s. per lb. Good *Persian* selling at 13s. 9d. per lb.

POTASH SALTS.—At the end of last week all the Montreal *potashes* offering in the Liverpool market were to be had at 21s. per cwt., and now 21s. 3d. is demanded. *Pearlashes*, dull and neglected, nominally 30s. 9d.; *Bichromate*, dull at 4d.; *Chlorate* has been very active, and nearly all the cheap lots are gone. Quotation is now 4½d. on the spot, and 4¾d. for January to June, in which a large business has been done; *Prussiate* firm, 9½d. for yellow.

POTASSIUM (BROMIDE).—A foreign agent is offering at 1s. 5d. per lb., or ¾d. below the convention price.

QUICKSILVER.—The arrivals have been very heavy this week, about between 3,000 and 4,000 bottles, but they are usually very large at this time of the year. The importers, early in the week, suddenly sold about 30,000 bottles at 9l. 10s., which was 5s. below his previous quotation, but he has since put up the price again to 9l. 15s.; second-hand quotations have been certain, and close at 9l. 11s. per bottle.

QUININE.—We have to report a large business this week, and the sales reported since last Thursday aggregate about 170,000 oz., though there is, of course, no evidence of the exactness of these figures. The bulk of the transactions have been in German hulk in second-hands; spot at 1s. 2¾d., rising to 1s. 3¼d. per oz. (to-day 1s. 3¼d. is reported paid); February-April, 1s. 3d. to 1s. 3¼d.; March-May (Auerbach), 1s. 3¼d. to 1s. 3½d.; May, 1s. 3½d.; June, 1s. 3¾d. The highest business yet reported in speculative hands is the sale yesterday of 5,000 oz. *B. & S.* by the makers, at 1s. 4d. per oz. for June. To-day, the price of *Pelletier's* brand in vials was advanced ½d. per oz. It is now 1s. 8½d. per oz., or higher than *Howards*, which is quoted at 1s. 8d. for vials, and 1s. 6d. to 1s. 7d. for bulk. A small second-hand lot of *Howards* vials was offering some time ago, but it had been taken out of the market, we are told, several days before the appearance of our last report. The *B. & S.* agents quote 1s. 4½d. forward, to-day, but expect to advance their limit to-morrow. The *Brunswick* brand is not quoted. *Lombarda* is held at 1s. 3½d. spot and March, and 1s. 4d. April-May. The last *Auerbach* quotation we had was 1s. 3½d. per oz.

SAFFRON.—A higher tendency is reported from Spain, though it is difficult to give actual quotations. It seems to be a fact that the article is still slowly advancing.

SEEDLAC.—Of 95 packages of Kurrachee seedlac offered at auction, about one half sold; clean reddish at 43s. to 44s. 6d., blocky at 35s. per cwt.

SENNA.—At Friday's auctions the remainder of the *Tinnevely* Senna offered, consisting of about 350 packages, was sold at a decline of about ½d. per lb. A large quantity of common small, stalky, and specky leaves was sold at 1½d. to 1¾d. per lb., and fair quality to medium greenish at 2½d. to 5½d. There were no fine lots offered. Our imports since last Thursday amount to about 500 hales.

SHELLAC.—The market is dull and lifeless now, and as the trade are waiting for the heavy monthly report of the shipments from Calcutta, no business was done to-day. At the call the feeling was slightly firmer, and the quotations are as follows:—

		Jan.	Feb.	Mar.	Apr.	May
Orange TN, sellers ..	..	78/	78/6	78/6	78/	78/
" buyers ..	..	76/	77/	76/6	76/	76/
Garnet AC, sellers ..	..	72/	72/	74/	—	—
" buyers ..	..	69/6	70/	71/	—	—

A fairly good business was done in the closing part of last week and at the opening of the present week, mostly in TN *Orange* lac, at 77s. 6d. per cwt. for February and April, and for unworked *Garnet* lac on the spot at 70s. 6d. per cwt. The auctions were very heavy; they embraced of

	Cases	Cases
Orange lac ..	1,047 of which	208 were sold
Garnet " ..	115 "	100 "
Button " ..	68 "	— "
	1,230	308

The supply was rather in excess of the demands, but holders were not disposed to make any concessions of importance, and the bulk of the lac offering was therefore bought in, the parcels sold, showing a decline of 1s. 6d. on orange and 1s. per cwt. on garnet lac, as compared with the previous week's prices. Of *Orange* lac a small lot of good bright worked H

in diamond sold at 79s., and fair roddish seconds at 75s. to 76s. per cwt.; block, partly damaged, at 72s. to 60s. per cwt. A parcel of fine bright BSLS was bought in at 110s. per cwt. nominally. For *Garnet* lac, partly caky unworked, 68s. to 69s. per cwt. was accepted. Since the auctions sellers in the ring have been more numerous, especially for distant delivery. Mail reports from Calcutta are very hulkish. They continue to speak of the bad outlook of the shellac crop, and assert that a large number of native factories, including the leading ones, have stopped working, and do not expect to re-open for some time.

SODA SALTS.—Nearly all dearer. *Ash* has been in good demand. The makers have sold large quantities, and there is some difficulty in procuring supplies. *Tyne*, 1½d. per degree less 1 to 2 per cent.; *London*, 1¾d.; *Caustic* is also held for higher prices by the makers; *Crystals* in a very strong position at 55s. to 56s. ex-ship *London*, and 47s. to 47s. 6d. on the *Tyne*; *Nitrate*, slow of sale; common to fine chemical, 8l. 5s. to 9l.

STRYCHNINE.—The quotations are now from 2s. to 2s. 2d., but it is said that some of the makers contemplate a rise of about 10 per cent.

TEA.—The China market is quiet generally. *Ceylons* are a trifle easier.

TURMERIC.—A fairly steady demand is reported, with sales of *Bengal* root at 9s. to 9s. 6d. for small and wormy mixed, and 10s. 9d. to 11s. for good hold. Fine *Madras* finger has found buyers at 12s. to 12s. 6d. per cwt.

THE AMSTERDAM CINCHONA AUCTIONS.

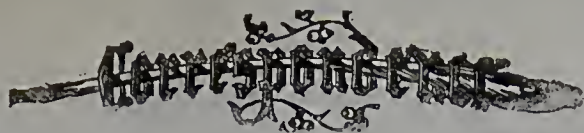
AMSTERDAM, Thursday Evening.

THE bark sales held here to-day were unusually heavy, comprising 3,959 packages of bark, representing about 360,000 oz. of quinine sulphate. Of this quantity 3,735 packages were sold with good competition at an average unit of 10c. per half kilo. (= 1¼d. per lb.), or about the same price as at the *London* sales of this week. The prices paid are as follows:—Manufacturers' barks in quill, broken quill and chips, 10c. to 89c. (= 1¼d. to 1s. 4d. per lb.); manufacturers' root bark, 22c. to 78c. (= 4d. to 1s. 2d. per lb.); druggists' barks, in quills, broken quills and chips, 8c. to 86c. (= 1½d. to 1s. 3½d. per lb.); ditto root, 11c. to 33c. (= 2d. to 6d. per lb.). The principal buyers, in order of their importance, are the Amsterdam quinine works, the Auerbach factory, Messrs. C. L. Schepp & Zoon, of Rotterdam, and the Frankfort quinine works.

THE CALIFORNIAN HONEY CROP.

MR. ALEX. CRIGHTON, of 15 Stanley Street, Liverpool, sends us the following remarks concerning the position of Californian honey:—Last season's (1888) shipments totalled up to 6,361 cases, and these large shipments it was thought would have the effect of bringing prices down to a lower level, but the consumption of honey of late years has been on the increase, and, instead of falling, prices have kept fairly steady all through the season, and the demand has been such that at this date there are only some 750 cases left unsold in first hands. If shipments had continued on a moderate scale throughout the latter half of 1889 the present position would have been somewhat altered, but since the month of May, 1889, nothing has been shipped except about 800 cases in November and December, 1889, showing that, as compared with last season, we stand as follows:—Total shipments to United Kingdom, 1888 crop, up to January 3, 1889, 4,799 cases; 1889 crop to same date, 800 cases; deficiency, 3,999 cases, or 83 per cent. Advices from San Francisco report a good demand locally, as well as for the Eastern States, and state that very little or no honey remains available for shipment to this country. Two shipments this season have gone to the Continent, one direct and the other *via* Liverpool.

The above figures taken together show that the visible supplies for trade demand are much less than they have been for years back, and also that the consumption of honey is extending in Europe. High figures as stocks reduce may consequently be expected.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

Personal Experiences of the Influenza Epidemic.

SIR,—In your last issue, page 52, you call reports from the papers of this horrible epidemic. Perhaps a few personal experiences may be welcome. Last Saturday night I went to bed in as good health as usual, and woke up on Sunday morning with a most acute frontal and nasal neuralgia. The pain in the nose was intense; as I had seen several victims I naturally concluded I had succumbed to "influenza," and thanked my stars it was Sunday. I managed to get out of bed and crawl downstairs and make myself up some medicine, and take up a clinical thermometer and the whisky-bottle with me, whilst my better-half was busy lighting the fire and getting ready a mustard foot-bath. I was now intensely cold, shivering violently, with great pain in the lumbar region, and a tongue like powdered rhubarb; temperature, 100.5; pulse 88 (normal pulse, generally, 76). The medicine I had made up for myself was:—

Ammon. carb.	..	..	..	gr. xxiv.
Spt. æth. nitr.	..	..	..	3ij.
Liq. am. acet. conc.	..	..	..	3iij.
Tinct. cinchon. co.	..	..	..	3lv.
Tr. aconiti, B.P.	..	..	..	9j.
Mist. camph. ad	..	..	..	3viij.

M. Cap. 3j. ter die.

After parboiling my feet in mustard-and-water till I could stand it no longer, I turned into bed with a good basinful of hot bread and milk, and when that was finished I took a dose of the medicine. However, I was still cold, and temperature rose by dinner-time to 102, pulse 94. I then sent the wife down for the tr. aconiti and liq. ammon. acet. conc., and increased the dose of the former to ℥iv. and the latter to ℥40, and then took a glass of hot whisky-and-water, and a dose of the medicine every two hours; after the second dose I broke into a profuse perspiration, and the temperature sank to 100° and pulse to 90. The frontal pain had now abated, and by 8 P.M. nearly disappeared; limbs still aching, pain in back less, temperature still 100°, pulse 85. I faithfully took the medicine every two hours till 12 P.M., when I dropped off to sleep. On waking on Monday morning the temperature was normal, and pulse 70; all the pains had disappeared, but I felt rather as though somebody had been knocking me about, and frightfully weak. However, I took 1 grain of quinine dissolved in tr. ferri perchlor. ℥x. every four hours, and by Tuesday night felt as nearly as possible myself again, and on Wednesday discontinued all treatment, nor have I since experienced any ill-effects.

I have had a considerable number of prescriptions to dispense, and append a few as curiosities of treatment:—

1.	Antim. tart.	..	..	..	gr. j.
	Liq. ammon. acetat.	..	..	..	3iij.
	Vin. ipecac.	..	..	..	3j.
	Vin. opii.	..	..	..	℥viij.
	Mist. camph. ad	..	..	..	3viij.
	3j. 4tr. horis.				

The following directions were given to the patient:—"Remain in bed till all pain in the limbs has disappeared; the medicine to be taken regularly, and the diet to be solely of liquids; no spirits or malt liquors. Smoking may be in-

dulged in in moderation. When the patient is free from pain, the following to be taken:—

Quin. sulph.	..	..	..	gr. xxlv.
Acid. hydrobrom.	..	..	..	3ij.
Tr. nucis vom.	..	..	..	3j.
Ext. cascar. sagradae liq.	..	..	..	3j.
Aq. ad	..	..	..	3vj.

3ss. t. d. s. p. c.

2. The following was given by the house doctor to thirty-three patients in a large house of business:—

Patient to take a very hot bath, and a glass of boiling (?) water to drink, then the following:—

Tr. chloroform et morphine	..	..	..	3ij.
Spt. camph.	..	..	..	3j.
Mist. camph.				
Aq. chloroformi, aa. ad	..	..	..	3vj.

3ss. 4tr. horis.

When the patient has left his bed, which must not be for three days,

Tr. quinine	..	..	..	3j.
T. d. s.				

3. The following was given by one of the leading physicians in the West-end:—

Pot. acetat.	..	..	..	3ij.
Liq. ammon. acetat.	..	..	..	3ij.
Tr. aurantii	..	..	..	3ij.
Aq. chlorof. ad	..	..	..	3vj.

3ss. 3tr. horis.

Quinine sulph.	..	..	..	gr. v.
Nocte maneque sum.				℥iv.

The majority of prescriptions, however, are simple diaphoretics with quinine. In five cases I have dispensed antipyrin, in four phenacetin, and in twelve tr. jaborandi (alone, with mist. campb.). In one week I have had nineteen prescribing cases for influenza, and in every case have given the mixture I took myself, and have found that in seventeen cases the patients could get out of bed in three days, and were cured in five days, only requiring a simple tonic after. The No. 1 patient was in bed a week, and is still "under the doctor"; No. 2, the house of business cases were well in a week; No. 3 is still under treatment, acute inflammation of the lungs having set in. No case have I been able to hear of amongst children under fourteen, but above that age the epidemic seems no respecter of persons, age, or sex.

E. J. W.

The Influenza Scare.

SIR,—The local newspapers are publishing a cure for the dreaded visitor, and recommend 2 oz. of tr. quin. ammon. to be bought and mixed with 6 oz. of water. A caution is given, "Be sure to get the right thing." The purchase is made and the water added; unexpected result—a ball of quinine, and an imprecation on the chemist for not supplying the "right thing." Some enemy must have circulated this prescription to discredit the trade. But it is a good one, and I recommend brethren to put in their windows cards bearing the words, "Quinine and camphor pills" and "Ammoniated tincture of quinine." These goods will be saleable.

Yours truly,

HEDER.

Star-anise Oil.

SIR,—In your article on "Star-anise oil" (January 11, 1890, pp. 46-7), you recall "a statement made by Mr. John Moss that the consumption of oil of star-anise was perhaps a thousand times larger than that of oil of European anise."

That Messrs. Schimmel should take exception to such a statement is not surprising, but I cannot accept responsibility for it as it stands. As you, sir, pointed out (April 6, 1889, pp. 485-6), and as I clearly stated (April 20, 1889, p. 556), "the remark on the proportions of oil of aniseed and oil of star-anise referred solely to the United Kingdom."

You will observe that the correspondence referred to

took place in the early part of 1889, not 1888, as stated in your article.
Yours faithfully,
January 14. JOHN MOSS.

Platinum Toning.

SIR,—The "Photographic Notes" written by your correspondent must indeed be very useful to many chemists who have taken or are contemplating entering into the photographic business.

I do not think the formula for platinum toning strong enough. I tried it, and it had no effect whatever on prints on ordinary albumenised paper. I showed it to an "amateur," who immediately referred me to Lionel Clark's formula, published in the *Amateur Photographer* on November 1, 1889, which is as follows:—

Stock Solution A.

Chloro-platinite of potassium	..	..	60 grs.
Water, distilled	..	..	2 oz.

Rapid Toning Bath for Black Tones.

Stock solution A	..	..	1 drachm
Water, up to	..	..	2 oz.
Nitric acid	..	..	1 or 2 drops

Process the same as described in "Photographic Notes."

For Warm Tones.

Stock solution A	..	..	1 drachm
Water	..	..	8 oz.
Nitric acid	..	..	1 or 2 drops

Immerse the prints several at a time. Perhaps the author of the paper might say if he intended 2 grains in the stock solution, as the difference between 2 grains and 60 is very great, and very much more expensive to use if the former would have done.
Yours truly,

Ban Top, Darlington, Jan. 8. FREDERICK G. WALTON.

[There is an error, as noted, in "Solution A," which should read

Chloro-platinite of potassium	..	..	30 grs.
Water	..	..	1 oz.

The article was written immediately after hearing the lecture, and the error was caused by the statement "that the above solution means 2 grs. to the oz. of water," which was presumed to refer to "Stock Solution A," whereas it referred to the toning bath. For albumenised paper the bath must be full strength (viz., 2 grs. to the oz.), and the prints should be washed first in dilute acetic acid, so as to help to render the albumen more permeable; but the result is not satisfactory—that is, one cannot always depend on the regularity of tone. Considerable saving may be effected by keeping the old toning baths, and recovering the platinum.]

Proportionate Weights in Pharmacopœia.

SIR,—In the report in THE CHEMIST AND DRUGGIST of a paper on "The Metric System of Weights and Measures," read by me to the Sheffield Pharmaceutical and Chemical Society, it is stated that I expressed a hope that ere long the metric system would be adopted in the Pharmacopœia. What I expressed on this point was regret that any system of weights and measures had been used rather than the adoption of proportional parts only, very slight alterations in strength being made to this end where required.

Yours truly,

Ecclesall Road, Sheffield, J. H. BRADWALL.
January 13.

Views on Sponge.

Messrs. Cresswell Brothers, 1 and 2 Red Lion Square, disagree with our correspondent Mr. T. Hawkins as to the importance of the subject raised in their letter published in this journal on December 21, and they reiterate their assertion that the best sponges are almost all bleached. They complain of our insertion of what they call "the ill-natured remark with which Mr. Hawkins covers his retreat," because

they say the pages of our journal can testify to the fact that they are quite able to pay for whatever publicity they require.

Advertisements in the Diary.

SIR,—Your recent post-card competition can hardly fail to have been interesting to your readers, and most instructive to your advertisers. We must own that whilst unable to congratulate ourselves on our endeavours to gain the approval of the majority, we have, thanks to you, acquired information which we hope in the future to put to profitable account. We failed to get mentioned under any heading, save one, and then only by five out of 436 competitors was our half-page advertisement deemed the best-looking. To these five we beg to convey, through your pages, our best thanks, and not empty ones merely, for we beg likewise their acceptance of one guinea each, which we ask you to be so kind as to convey to them, for we cannot have the remotest knowledge of their identity. For this purpose we have the pleasure to enclose a cheque for the amount. We shall thus have the satisfaction of knowing that by recording their votes for our firm's advertisement they have not suffered any pecuniary loss.

Begging to thank you by anticipation,

We remain, yours faithfully,

OSCAR SUTTON & Co.

[We have distributed the guineas as requested.—ED. G. & D.]

The Check-Till.

SIR,—When using the expression, "as good a check as we want ordinarily," I meant that it is not always necessary to keep an account of all articles sold, and that the fear of detection will prevent a very large amount of dishonesty. If a man's mind is made up to rob an employer, the theft will be committed in spite of all the checks adopted. I expect a *locum tenens* to keep account of his sales, and I should require the manager of a branch shop to do the same. But in the ordinary course of business, I content myself with a general look-out, and by wrapping up the larger coins, as they come in, into packets of 10s. each. The gentleman who bought the till which is known as Nixey's, had an assistant who raised his suspicions by his extravagance in kid gloves and patent-leather boots; and he told me that the new purchase soon repaid its cost. I admired the article mainly because it kept the coins handed over in view for some time, unless they were put into the lower draw to be changed.

Yours truly,

HEDER.

[Mr. G. E. Sherwin, not the firm mentioned a fortnight ago, is the maker of the counter coin-checker.]

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Was this Right?

SIR,—I had the following prescription to dispense:—

Bismuth. carb.	..	..	..	5j.
Pulv. tragac. co.	..	..	..	3j.
Tr. catechu	..	..	..	3iv.
Liq. opii sed.	..	..	..	3i.
Inf. rosæ ad	..	..	..	3vliij.

M. ft. mist. An eighth part every three hours.

Not knowing the doctor, I took the liberty of substituting for the inf. rosæ (which, of course, is incompatible with bismuth. carb.) aqua rosæ coloured with 45 minims of liq. cocci. I should like to know what some of your readers would have done under the circumstances. The mixture has been repeated more than a dozen times since.

Yours truly,

THESEUS. (220/48.)

The Ergot and Pot. Brom. Mixture.

SIR,—I have frequently found mixtures containing ext. ergotæ liq. assume the appearance of thick mucilage, but have never known one to generate sufficient gas to burst a bottle. The ergot and pot. bromid. mixture is frequently dispensed here, but never without sp. chlorof. or aq. chlorof., which is found to prevent any decomposition taking place.

CASCARA. (211/40.)

Cocaine and Borax.

SIR,—What is the best method of dispensing the following:—

Acid. hydrocyan. dil.	..	..	..	3ij.
Sodii bibor.	..	..	..	gr. 72
Cocainæ mur.	..	..	..	gr. xx.
Aquæ ad	..	..	..	3iv.

M.

To be used as directed, at night.

LIGNUM. (227/29.)

[Borax being alkaline precipitates cocaine hydrate in this case. A clear solution is obtained by neutralising the borax with boric acid, and this is the best course to adopt. It would be advisable to ask the prescriber's permission for this alteration; otherwise, mark on the prescription how much boric acid is used.]

Quinine and Potassium Citrate.

SIR,—The following was handed in to-day:—

Quin. sulph.	..	..	..	grs. xxiv.
Ac. citrici	..	..	..	3ss.
Potass. citrat.	..	..	..	3iiss.
Syr. aurant.	..	..	..	5ss.
Aquæ ad	..	..	..	3viiij.

M.

The mixture had been dispensed clear previously, and had remained so. I got a clear mixture, but in a few minutes it turned cloudy and gradually threw down a thick white precipitate. Kindly say if it is possible to dispense this mixture to be permanently clear, and if not, what is the nature of the precipitate?

Yours faithfully.

EUCALYPTUS. (214/27.)

[This is the old difficulty mentioned on page 194 of the "Art of Dispensing." Quinine citrate crystallises out as soon as the solution of potassium citrate is added to the solution of quinine. This cannot be avoided, nor can the mixture be dispensed clear, as there is only water in it sufficient to dissolve about $3\frac{1}{2}$ grains of the quinine salt. We get a fair, diffusible mixture by rubbing down the quinine sulphate with the syrup and 5 oz. of the water; dissolve the acid and citrate in the rest, and mix. Even in this mixture large crystals are found in a few days.]

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

215/40. H. R.—Lampas is an inflamed condition of the front part of the palate; it most frequently occurs in young horses whose dentition is incomplete. If a temporary tooth is seen sticking in the palate it should be pulled out. Horses may have it at any age. The usual treatment is to let out a little blood with a small stiff blade. If the horse can be spared, a dose of physic from 4 to 8 drachms of aloes after due preparation (see DIARY, 1890, "Physic"). If circumstances will not allow a dose of physic to be given, give pot. nit. 3 or 4 drachms, pot bicarb. 1 oz. every night in the drinking water for a few nights.

220/49. J. H. G.—We have yours before us, and will give it, and similar queries involving experiment, our attention next week.

215/44. Graph.—You will find a formula in our issue of May 18, 1888, page 712. Have you tried it? We presume that you are aware that graph composition is the subject of a patent.

212/15. Cement.—Ink Stains are best removed from books by means of salt of sorrel. Brown age-stains may be removed with solution of peroxide of hydrogen.

212/18. J. E. W.—Aquarium Cement:—

	Parts
Plaster of Paris	.. .. 3
Lithargo	.. ..
Fine white sand	.. .. 3
Powdered resin	.. .. 1

Mix well and make into a putty with boiled linseed oil.

212/13. C. C.—Ung. Galban. Comp. (Squire):—Galbanum plaster, 4 oz.; lead plaster, 4 oz.; white wax, 4 oz.; liquid extract of opium, 1 drachm; olive oil, 20 oz. Melt together and add honey, 1 oz. "It is an excellent application for piles, boils, carbuncles, for sore nipples, and suppurating breasts."

216/6. W. F. L.—The substance is horn. We have no knowledge of its value.

215/63. F. J. M.—Lecture on the Air we Breathe.—You will find all you require for an elementary discourse in Roscoe's "Chemistry" and Balfour Stewart's "Physics." You should also read Tyndall's "Floating Matter in the Air."

236/8. Devon.—Paste Blacking:—

Ivory black	..	..	..	2 lbs.
Sperm oil	..	..	..	4 oz.
Treacle	..	..	..	1 lb.
Vinegar	5 oz.

Mix in the above order, then add gradually—

Strong sulphuric acid	4 oz.
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Heat, if necessary, until effervescence ceases, and then incorporate—

Sulphate of iron	$\frac{1}{2}$ oz.
Gum arabic	..	..	$\frac{3}{4}$ "
Hot water	..	..	5 "

216/29. N. T.—Try Balfour's "Elementary Botany" (Black, 3s. 6d.).

216/54. Pepsin.—We must ask you to test the sample yourself, following the Pharmacopœia instructions.

217/20. A. M. S.—(1) The Simple Chemical Experiments were given in our issue for December, 1886. (2) All the inks for which formulæ are given on page 263 of the DIARY are suitable for stylographic pens.

30/18. Sodci wishes a formula for Syrup of Magnesium Hydrate.—The following is suggested by Mialhe:—

	Parts
Calcined magnesia	.. .. 10
Hot water	.. .. 70

Mix, transfer to a bottle, and digest on a water-bath for half an hour; then add—

Syrup of orange flowers 70 parts by weight
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and, if necessary—

Water, sufficient to make 150 parts by weight
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Dose: from a teaspoonful to a tablespoonful, according to age and the purpose for which the syrup is required.

LEGAL QUERIES.

215/60. *H. T.*—You certainly do not infringe the legal rights of the apothecaries by publishing a circular or pamphlet, nor by putting up a mixture and selling it to anyone who is willing to buy it. But in the circular you invite people to come and consult you. In such consultation you may or may not "act as an apothecary." To do so (it has been laid down) you must profess to judge of internal diseases by its symptoms and endeavour to cure that disease by medicine.

J. B.—The allowances in the County Court for ordinary witnesses are as follows:—Gentlemen, merchants, hankers, and professional men, per diem, from 15s. to 21s.; tradesmen, auctioneers, accountants, veterinary surgeons, clerks, and yeomen, per diem, from 7s. 6d. to 15s. In this case our correspondent would only be entitled to from 7s. 6d. to 15s., according to the length of time he was occupied at the court, and his travelling expenses in addition at the rate of 6d. per mile one way. Where a witness is called as an expert he is allowed a higher rate for attendance at court, namely, 1l. 1s. to 2l. 2s., and in addition from 1l. 1s. to 3l. 3s. for qualifying himself—that is, for the work done in preparing himself to give evidence. This latter scale, however, only applies where the amount in dispute is over 20l. Travelling expenses at the rate of 6d. per mile will be allowed in addition in every case.

217/57. *Febrin.*—The owners of the show-case, if they really lent it to A, have the right to recover it, and C can recover what he paid for it from the party who sold it to him.

220/27. *N. B.*—We should think phenacetin would be regarded as a simple drug, and as such exempt from medicine-stamp duty, however recommended.

220/5. *W. F. G.*—If a medicine is a simple drug, and as such exempt from medicine-stamp duty, it is not rendered liable by being labelled with the name of the seller in the possessive case.

220/47. *Lactopeptine.*—If you make your daughter an executrix of your will she can, as such, carry on your business after your decease with the aid of a registered chemist as manager.

The Methylated Spirit Licence.—Recently we informed a correspondent in this column that one licence to sell methylated spirit would cover the sale in more than one set of premises belonging to the same person, provided such premises were named when the licence was applied for. This statement was corrected from various parts of the country, and it seems to be undoubtedly the practice of the Board of Inland Revenue to charge a separate licence fee for each set of premises. But it still remains doubtful whether they have a legal right to make this charge. Mr. James Anderson, Dundee, has kindly forwarded to us a correspondence he has had with the Board on this subject, in which the doubtfulness of the legal position is made manifest. Mr. Anderson first asked if one licence would suffice for his three shops if all the premises were entered on the licence when taken; to which the Board replied that "a separate licence must be obtained for each set of premises at which methylated spirit is sold." Mr. Anderson next asked the Board to point out the clause authorising this claim, and was referred to section 10 of the Act 6 George IV. cap. 81. But, said Mr. Anderson in reply, the licence is imposed by section 1 of 24 and 25 Vict. c. 29, and section 2 of that Act places it under 6 George IV. c. 81, of which section 10 requires a separate licence for each set of premises; but 52 & 53 Vict. c. 42 repeals section 2 of 24 & 25 Vict. c. 9, leaving it apparently the law that the vendor is to be licensed, and that he is to state where he intends to keep his spirit. It took twenty days for the Board to reply to this last letter, and in this, dated December 10, 1889, they contented them-

selves with stating "that they are advised that a licence is required for each separate and distinct set of premises where methylated spirits are retailed."

216/57. *Nemesis* says:—I was engaged by the superintendent of police to analyse a piece of meat, which I found to be poisoned with strychnia. A few minutes before the case came before the magistrates I was asked to state my fee for the work done. I made a charge of 3l. 3s., exclusive of attendance and giving evidence at court. The case ended in a conviction, and, to my surprise, I was afterwards informed that 2l. 2s. only had been allowed me. I have refused that amount, and have sent my bill to the magistrates, who say the case is closed and they cannot reconsider it. My claims are, 3l. 3s. for the analysis and 10s. 6d. for attendance at court. Can I obtain it? If so, from whom and how?

[The magistrates have an absolute discretion to fix the remuneration of witnesses, and they having fixed same, there is no appeal against their decision. There is no fixed scale for attendance of witnesses before magistrates, or for qualifying as witnesses, and the matter rests entirely with the court. We should therefore advise our correspondent to accept the 2l. 2s. allowed.]

221/22. *Vernet.*—You can value stock for a friend if you do so without fee or reward, or you may make a valuation for the private satisfaction of the owner, or under a distress for rent, or for ascertaining the amount payable for probate; but if you otherwise make any appraisal or valuation chargeable with stamp duty, or exercise the calling of an appraiser, not being licensed, you are liable to a penalty of 50l. The annual licence costs 2l.

221/44. *Vigilans.*—The publication of your letter as it stands would be misleading. The law prohibiting the sale of spirit between 10 P.M. on Saturdays and 8 A.M. on Mondays applies to methylated spirits only, not to S.V.R., as you assume. Moreover, the latter can only be legally sold at all by persons holding a spirit licence, though a small concession (as explained in the DIARY) is made in favour of small sales to medical and scientific men by chemists.

222/15. *W. W.*—You are required to stamp patent medicines which you sell in England for shipment to a foreign country. If you have an agent abroad you can consign such medicines to him unstamped if the goods remain *bonâ fide* your property until they are sold.

Information Supplied.

199/7. **Metal Pill-boxes.**—Toogoods and several other houses keep two or three sizes in stock.—*HEDER.*

201/19. **Cre-fydd's algonion balm**, 4s. 6d., of all patent-medicine houses, is a preparation of sea-weed.—*HEDER.*

193/60. **Pearl ointment** was made of ung. cetacei and bismuthi alb., in the Midlands; but whether this compound represents the proprietary article I cannot say.—*HEDER.*

I think pearl ointment refers to Dr. Wright's pearl ointment, a patent obsolete now, and for which Cooley gives the following recipe:—

Hyd. amm.	..	..	..	..	8 oz.
Goulard's extract	..	..	..	..	1 pint.
Rub into a cream and add to the mixture					
Cera alb.	..	..	..	..	7 lbs.
Ol. olive	..	..	..	..	10 "

Previously melted together by gentle heat and stir till nearly cold

In place where I was this was sold and greatly esteemed by the customers.

Yours truly,

Trx. (220/14.)

190/74. **Solvent for Gas-tar.**—"T. A." should examine an article called "Pixenc."—*HEDER.*

Whooping Cough.—Your inquirer "Benzoin" would find the mist. pertussis of the Victoria Hospital for Children an excellent remedy.

J. BURT.

[What is the mixture?—*EDITOR.*]

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Tablets are of such a form that they can be easily divided, should a smaller dose be desired; and *the taste can hardly be distinguished from that of ordinary Chocolate.*

Feb. 8, 1889.

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—, M.R.C.S.

To Messrs. FERRIS & Co.

CHOCOLATE

Feb. 13, 1889.

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—, L.R.C.P., M.R.C.S.

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	} <i>MEDICAL</i>			
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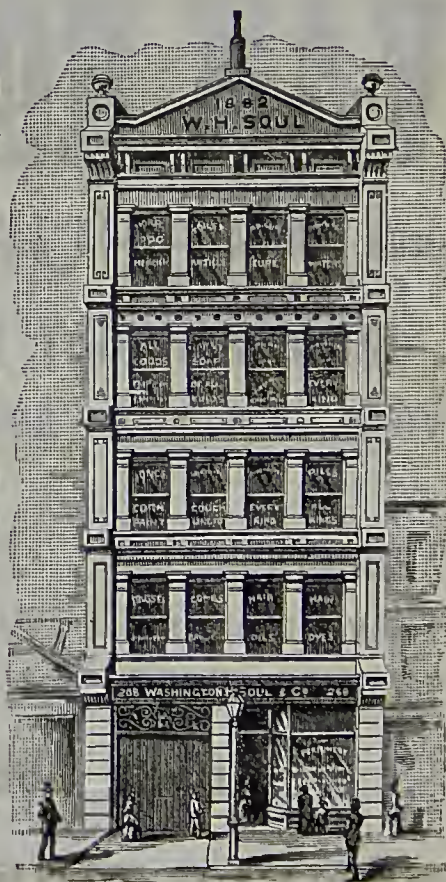
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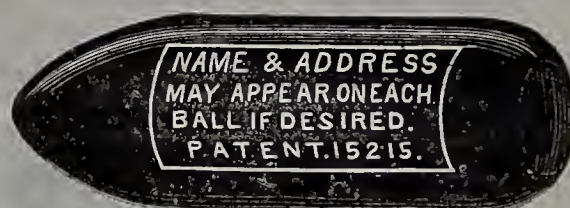
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[4]

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"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE, THE GREAT BLOOD PURIFIER AND RESTORER.

(Trade Mark—"BLOOD MIXTURE." Registered No. 3275)

The Celebrated CURE FOR Scrofula, Scurvy, Eczema, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses. Usual terms.

Sole Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.
CAUTION.—This Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.

TYPKE & KING,

Trade Mark CHEMICAL MANUFACTURERS, Trade Mark



22 LAURENCE POUNTNEY LANE,
LONDON, E.C.



Registered.

Manufactories: MITCHAM & RAINHAM.

Registered.

Pure Acids—VALERIANIC ACID and all VALERIANATES. ANTIMONY GOLDEN SULPHURET, ANTIM: CROCUS LUMP and POWDER. Essences of Pear and Pineapple. POTASSIUM CYANIDE. Nitrate of Ammonia, crystal and granulated. Potass. Sulphid. Iron Perchloride, solid and solution. HYPOPHOSPHITES OF LIME, MANGANESE, SODA, POTASH, &c. ACID PHOSPHORIC 1750 and 1500. Hydrochinon and all Chemicals for Photography.

DISPENSING BOTTLES & PHIALS

BEFORE ORDERING

Of any other House, please write for prices of any size required to either of our Warehouses—

25 Francis St., Tottenham Court Road }
61 Halton Road, Islington } LONDON.
153 Upper Thames Street, City }

ESTABLISHED UPWARDS OF 50 YEARS.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS.

BANKERS: LONDON AND WESTMINSTER BANK.

DINNEFORD'S FLUID MAGNESIA



PERFECT IN PURITY AND UNIFORM IN STRENGTH.

The most efficacious antacid and mild aperient for Delicate Constitutions. Ladies, Children, and Infants.

OF ALL WHOLESALE DRUGGISTS.

METHYLENE.

Obtained by the action of Metallic Zinc on Chloroform and Alcohol.
Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.

Bottles, 1lb.; 6-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

COMPOUND ANÆSTHETIC ETHER.

For producing Local Anæsthesia.
In 4-oz., 10-oz., and 20-oz. Stoppered Bottles, 2s., 4s., and 7s.

OZONIC ETHER.

2-oz., 4-oz., 8-oz., and 16-oz. Stoppered Bottles, 2s., 3s. 6d., 7s., and 10s.

PEROXIDE OF HYDROGEN.

First introduced as a Medicine by Dr. RICHARDSON.

ETHYLATE OF SODIUM

Dr. RICHARDSON'S Formula, for removing Nævi, &c. In 4-oz. & 1-lb. Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. & 4s. 6d.

STYPTIC COLLOID.

For promoting the Healing of Wounds by the first intent! In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.

CHARCOAL CAPSULES

Containing Pure Vegetable Ivory Charcoal.
In Boxes, 2s. 6d. each.

"CUTTING COUNTERACTED."

MOONSEED BITTERS brings FULL PRICES.

WHY?

Because every one who retails Moonseed Bitters has to sign an Agreement or Contract in the following terms:—

Memorandum of Agreement made this.....day of..... 1889, between A. E. POWELL & COMPANY, of Swindon in the County of Wilts, Proprietors of the Moonseed Bitters and Moonseed Ointment (hereinafter called the "Vendors"), of the one part and of (hereinafter called "the Purchasers"), of the other part.

Whereby it is mutually agreed between the said parties hereto as follows:—

In consideration of the Vendors selling to and supplying the Purchasers with Moonseed Bitters, Moonseed Ointment, and other preparations manufactured and sold by them (hereinafter termed "the Goods") at their usual prices, the Purchasers will observe and perform the following terms and conditions:—

1. The Purchasers to sell the Goods retail for full printed prices only, and for each and every Bottle or Box of Moonseed Bitters, Ointment, or Pills sold by him or them at any less price, without the written consent of the Vendors, the Purchasers shall pay to the Vendors the Sum of Twenty Shillings in the nature of a penalty, to be recoverable as ascertained liquidated damages.

2. The Purchasers not to supply any Wholesale House nor to sell the Goods wholesale to any Chemist or Druggist or Medicine Vendor who will not previously enter into an Agreement to retail the same at prices in accordance with the preceding Clause No. 1 of these presents.

All Purchasers who have signed a similar form of Agreement to the foregoing will be supplied upon the Vendors' usual trade terms, but those Purchasers who do not sign a similar form of Agreement to be supplied upon the following terms only, namely:—RETAIL, 4s. 5d. for each and every 4s. 6d. Box or Bottle, 2s. 8d. for each and every 2s. 9d. Box or Bottle, and 1s. 0½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. WHOLESALE, 4s. 4d. for each and every 4s. 6d. Box and Bottle, 2s. 7d. for each and every 2s. 9d. Box or Bottle, and 11½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. This Agreement and the terms and conditions herein contained to remain in full force and virtue for the term of 7 years from the first day of March, 1889.

As witness the hands of the said parties hereto the day and year first above written.

We call attention to the important steps which we have taken to prevent our specialities being retailed at less than the advertised prices, and we ask the co-operation of the Trade in maintaining the integrity of the scheme whereby the sale of our preparations may always be retained by the legitimate trade. We will not only endeavour, by all means in our power, to prevent the advertised prices being "Cut," but will give Chemists every assistance and facility for making this a large as well as a paying business.

Please write for Terms and Form of Agreement. NOTE that we allow retailers of Moonseed Bitters 2s. 6d. per thousand for the Distribution of Pamphlets.

A. E. POWELL & CO., SWINDON.



MOONSEED BITTERS.

Moonseed Bitters
CURES
Consumption, Asthma,
Bronchitis, Hooping & every other
form of Cough, Paralysis, Epilepsy, Con-
vulsions, Cramp & Spasms, Cancers,
& every other Skin & Blood disease.
Is the safest & most certain Liver
& Indigestion Cure on the earth.

SOLE PROPRIETORS

A. E. POWELL & CO.
PRICE 2/9 SWINDON

MOONSEED BITTERS.

Above is Facsimile of
THE WRAPPER LABEL
of the 2/9 size.

It is also sold at 4/6.

MOONSEED OINTMENT.

Retails at 1/1½, 2/9, 4/6 per box.

WITHOUT A RIVAL!

From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find BEECHAM'S PILLS the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand every year.

The words "BEECHAM'S PILLS, SAINT HELENS," are on the Government Stamp affixed to each box.

Prepared only and sold by the Proprietor, THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use

JOHNS'

The Best and Safest Medicine for all Disorders of the Liver and Digestive Organs; also invaluable in all Female Complaints.

Full
Directions
with each Box

LIVER PILLS.

PREPARED AND SOLD BY

W. JOHNS, 6 Wilkes St., LONDON, E.

In Boxes 1s. 1½d. and 2s. 9d. each.

(ESTABLISHED UPWARDS OF 50 YEARS.)

HUMPHREY DAVY & SON (LIM.)

MANUFACTURING CHEMISTS AND PERFUMERS,

WHOLESALE & EXPORT DRYSALTERS, OIL MERCHANTS & PACKERS,
MANUFACTURERS OF

FURNITURE CREAM, POLISHING PASTE, WRITING INKS, LIQUID BLUE,
KNIFE POLISH, PLATE POWDER, &c.

VICTORIA WORKS, Masbro Street, ROTHERHAM.

All
Wholesale
Houses.

PETER MÖLLERS

43
SNOW HILL
E.C.

LONDON, CHRISTIANIA, STAMSUND, AND SYLTEFJORD

EXTRACTUM SENNÆ LEGUMINUM LIQUIDUM;

OR, FLUID EXTRACT OF SENNA PODS (RANKIN & BORLAND'S).

A pleasant, mild, and efficacious Aperient, superior in many respects to Cascara Sagrada. Dose—From ½ to 1 Fluid Drachm.
See Paper by Dr. MACFARLANE in The Lancet of Saturday, July 27th, 1889, p. 164.

Prepared by RANKIN & BORLAND, Pharmaceutical Chemists, KILMARNOCK, N.B.

SPECIAL**INDIARUBBER
POROUS PLAISTERS.****STRENGTHENING, BELLADONNA,
AND CAPSICUM.**

Manufactured by

WILLIAM MATHER.

Chemists are respectfully informed that by purchasing one gross of any of the above their own Names and Addresses may be printed upon the wrapper and back cloth of each plaister.

PRICE, INCLUSIVE OF PRINTING, **24/-** PER GROSS.

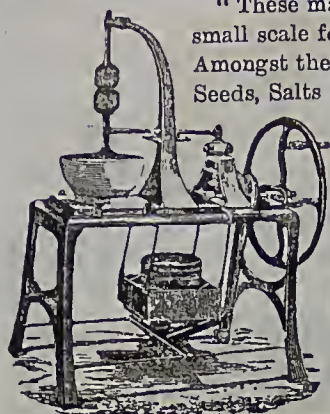
Subject to usual Discount, as per Price List.

W. MATHER.

MANUFACTORY:—

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London Wholesale and Export Agents:—Messrs. MACE & HALDANE, 94 Milton Street, LONDON, E.C.

GOODALL'S PATENT GRINDING & LEVIGATING MACHINES.

"These machines have for many years proved most serviceable on a large and small scale for Grinding, Levigating, and Mixing Powders, Pill Masses, Paints, &c." Amongst the articles which are readily ground by it may be mentioned Ginger, Seeds, Salts of all kinds, Cream of Tartar, Sugar, Cocoa, Pepper, Spice, Jalap, Rhubarb, Gums, Aloes, Barks, &c.; and for mixing or kneading Lozenges, Pill Masses, Glaziers' Putty, Bread, Biscuits, &c.

ILLUSTRATED PRICE LIST, with full particulars, sent free.

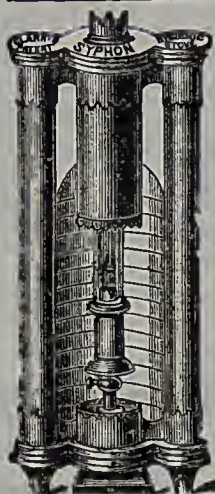
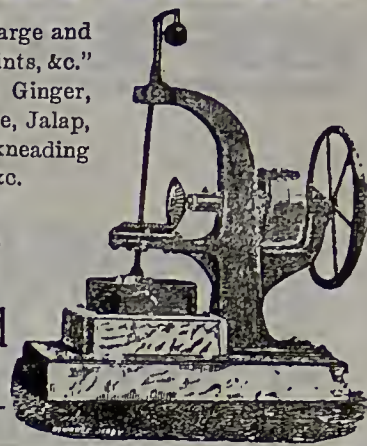
Prices from £8 10s. to £60.

E. F. GOODALL, Barton-under-Needwood

London Office and Show Rooms:

6 ELDON ST., LONDON, E.C.

Agent—Z. CARTWRIGHT.

**TO CHEMISTS AND DRUGGISTS.**

AGENTS WANTED FOR THE SALE OF CLARK'S PATENT

"SYPHON"

(REGISTERED TITLE)

HYGIENIC CONDENSING GAS HEATING STOVES.

NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

FOR USE IN HOSPITALS, SICK CHAMBERS, BEDROOMS, HALLS, CONSERVATORIES, CHURCHES, SCHOOLS, ETC.

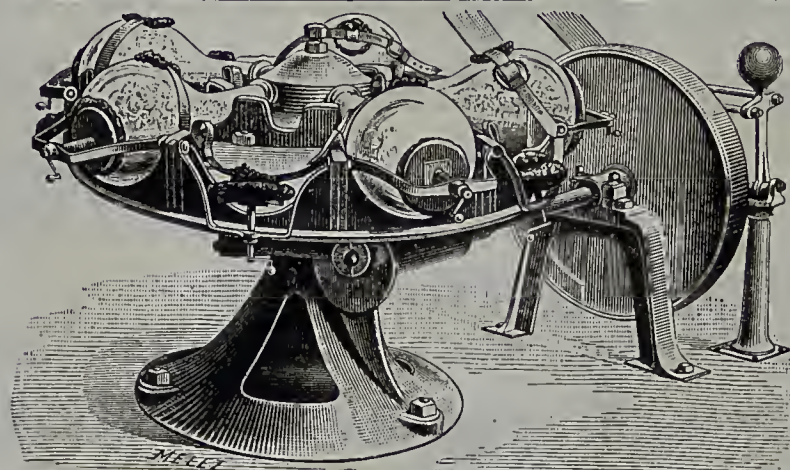
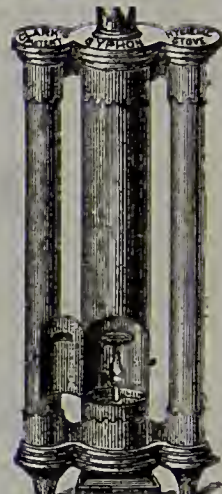
Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

FOR TERMS, PARTICULARS, AND PRICES, APPLY TO

S. CLARK & CO., Patentees & Makers, Syphon Works, Park St., Islington, LONDON, N.

Telegraphic Address:—"SYPHON STOVES LONDON."

Wholesale Agents:—Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.O.



BEYER FRERES,

16 & 18 RUE DE LORRAINE,
PARIS.

2 GOLD MEDALS PARIS EXHIBITION, 1889.

NEW AGITATING MACHINE

For macerating and exhausting raw materials in infusion with alcohol, producing 150,000 movements per day in each metal receptacle, with a minimum of force. A considerable economy of time, labour, and capital is obtained in infusing musk, amber, benjamin, civette, iris, grains, powders, or pharmaceutical products treated with liquids or ether.

These machines are made for 10 or 15 bottles, each containing about 15 litres, as required.

**NEW PATENT
AIR-TIGHT CHEMIST JAR.**

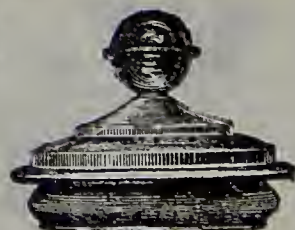
A slight turn of the knob presses the indiarubber Band against the glass, and renders the vessel absolutely air-tight. The Stopper is made of pure Nickel, of handsome shape.

INVALUABLE FOR SHOW BOTTLES, CHEMISTS, CONFECTIONERS, &c.

Samples and Prices of all Chemists' Sundriesmen.

C. MELIN,

37 CRUTCHED FRIARS, MARK LANE, E.C.



Section of the Nickel
Stopper when closed.

“ACME BRAND” MENTHOL CONES.

Book your wants for “Cones.” Menthol keeps advancing; but at present
OUR PRICES ARE UNCHANGED.

With Orders of £1 5s. we will supply a Pretty China Group, with Sign-post bearing lettering (this makes a striking Advertisement in any Window); or a Japanese figure 18 inches high, with board with Inscription, Japan being the “home” of Menthol. This makes an appropriate and telling show figure.

No. 88.	Hard Wood Boxes, Pedestal Shape	1/9 per doz.	No. *206.	Boxwood Boxes, as No. 203, large size	3/3 per doz.
89.	Nickel Screw Capped Bottles, 80 grn. Cones	3/3	*207.	“ “ Draughtsman Shape	3/6
90.	“ “ “ “ 60 “ “	2/9	*207B.	“ “ “ “ small size ..	2/3
92.	“ “ “ “ 30 “ “	1/11	*208.	Vegetable Ivory, “ “	4/9
*161.	Boxwood Boxes, Acorn Shape	3/2	*210.	Boxwood Boxes, Acorns, Nickel-plated Caps	3/6
*162.	“ “ Pedestal Shape, Screw Lids	3/-	*211.	Vegetable Ivory Boxes, Nickel-plated Caps	4/-
*163.	Vegetable Ivory, Acorn Shape	4/-	*212.	Boxwood Boxes, Bullet Shape, reversible end	3/5
*200.	Boxwood Boxes, Pedestal Shape	2/2	213.	Menthol Charms for Watch Chain, &c.	2/1
*201.	“ “ Barrel Shape, Screw Lids	3/-	214.	Glass Show Bottle, with Conc on Stopper	3/10
*201B.	“ “ “ “ extra large Cone ..	4/3	214G.	“ “ “ “ extra large Cone	5/1
*202.	“ “ “ “ Bullet	3/-	*216.	Boxwood Boxes, Beer Bottle Shape, large Cone ..	4/-
*203.	“ “ “ “ Cone	3/-	217.	Glass Show Bottle, with Cone on Stopper	2/9
*204.	Vegetable Ivory, Castle “	4/3	218.	Menthol and Court Plaster, in Nickel Cases	3/9
205.	Boxwood Boxes, Cone Shape, each in box	2/6			

NEW PATTERNS, SPECIALLY SALEABLE.

No. *217F.	Glass Show Bottle, with foot, as fig. 88	1/8 per doz.
*217A.	“ “ “ “ as fig. 161	3/-
*214A.	“ “ “ “ as fig. 161. This has a very large Cone	4/3
220.	Cone Shape, as fig. 203, each in slide box, 1 dozen in Outer, extra size	4/3
*221.	Large Flat Draughtsman, very large Cone (120 grains)	4/9
222.	Elegantly-cut Show Glass Bottles, 3 cuttings	9/-
224.	Enamelled Tin Box, with Printing on box, 30-grain Cone	1/6

All Patterns marked thus * may be had 2d. dozen less in Plain Card Boxes, instead of our Registered Hanging Glass Show Case.

All Patterns marked * may be had Curded where possible, at same reduction as for Plain Boxes.

To meet the requirements of those who require

CHEAP MENTHOL CONES

we have decided to offer them at lower prices than hitherto.

We guarantee them all pure Menthol, of best quality.

No. 207s.	Draughtsman Shape, Polished Willow Boxes, usual 1s. size	20/- per gross.
202s.	Bullet “ “ “ “ “ “ 9d. “	13/6
206s.	Cone “ “ “ “ “ “ 9d. “	13/6
201.	Barrel “ “ “ “ “ “	13/6
219.	Bottle “ “ “ “ “ “ 1d. size	8/-

202, 202s.

207, 207B, 207s.

220, 203, 205, 206, 203s.

These Prices are for not less than Half a Gross, one Pattern or Assorted.
All Boxes are best finished, and with label branded on box, except Nos. 216, 221, and 220, and the Glass Show Bottles and Cheap Series.

SPECIAL PRICES FOR QUANTITIES AND LOOSE CONES.
Branded Boxes may be had with Buyer's own name if desired. Particulars on application.

HOCKIN, WILSON & CO.

13 to 16 New Inn Yard, 186a Tottenham Court Road, LONDON, W.

AND MANCHESTER.



163.



201, 201B, 201s.



88, 162.



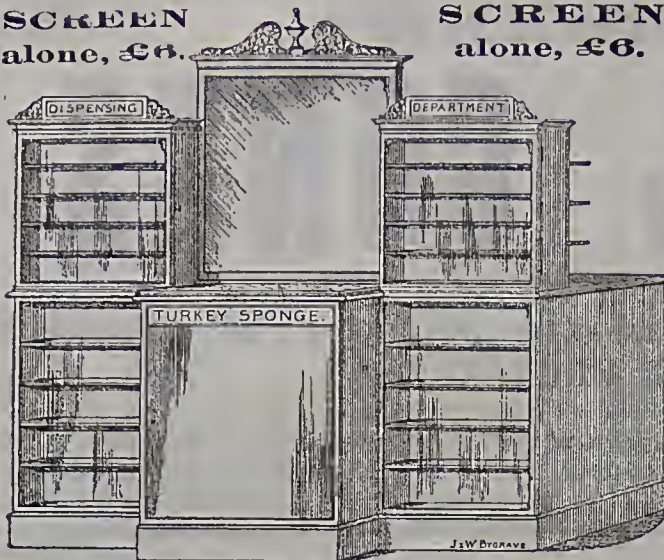
89, 90, 92.



214, 214G, 217.



161, 210, 211.

SCREEN
alone, £8.

The above represents a solid mahogany Dispensing Screen and glass fronted Counter. The Screen has a glass case at each side, with plate-glass tablets and gold writing on top—"Dispensing Department"; and a plate-glass mirror with marble slab in centre, with mahogany ornamental wood on top. Doors of screen are glazed with best 21-oz. glass, and inside the cases are polished black, with three long shelves right along the back for dispensing bottles. The Counter opens in front with three solid mahogany doors glazed with best 21-oz. glass, centre for sponges underneath. Counter at the back is fitted with a nest of deal drawers and shelves. If 6 feet long, and 5 feet high to top of cases, complete, £11 10s.

J. & W. BYGRAVE.
SHOP FITTERS,

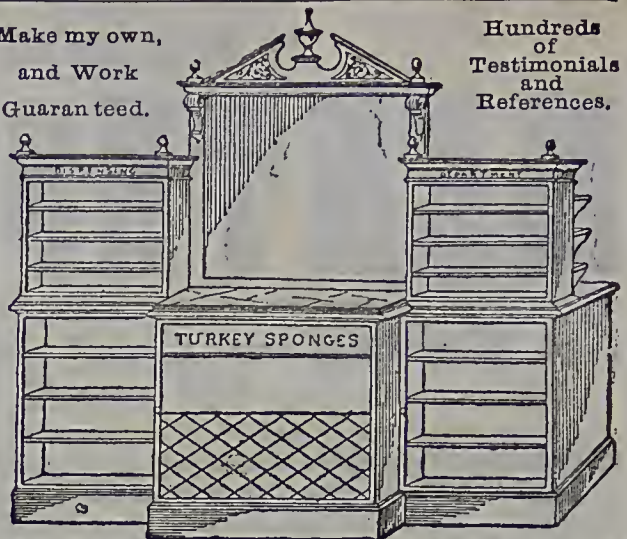
111 Shepherdess Walk, City Road, LONDON, N.

For further particulars please send Business Card.

SCREEN
alone, £6.

Make my own,
and Work
Guaranteed.

Hundreds
of
Testimonials
and
References.



The above represents a Plate-glass and Mahogany Dispensing Screen and Counter. The cases on each side of the marble slab over sponge case have silvered glass backs, and are fitted with movable shelves; the cases in front of counter are also fitted with movable shelves. The mahogany used is beautifully figured. At back under counter fitted with Drawers for Corks, Labels, Paper, &c., &c., and the back of screen with three shelves the entire length for Bottles.

6 ft. long, complete, £16; if Screen only, without Counter, £8 10s.

ELKANAH NATALI

(Established 20 Years),

SHOW CASE MAKER AND SHOP FITTER,

207 OLD STREET (Shoreditch End), LONDON

Workshops—HENSON STREET, E.C.

(ONLY ADDRESSES).

No connection with any other house of the same name.
PLEASE ADDRESS IN FULL.

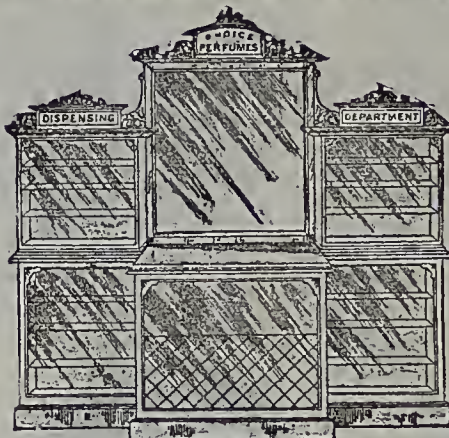
"THE CHEMIST" DISPENSING COUNTER.

6 feet long by 2 feet wide .. £24
If the Dispensing Screen only, £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison cupboard. The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.

BOWLING & GOVIER

Manufacturers of High-class Shop Fittings,
GUN ST., BRUSHFIELD ST.
BISHOPSGATE, E.C.



NOTICE TO THE TRADE.

In consequence of inferior Second-hand Goods being sold for our make, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, and unless goods are so stamped we cannot be answerable.

GEORGE TREBLE & SON,
FOR
CHEMISTS' SHOP FITTINGS & SHOW CASES.
SHOPS FITTED FROM £50.

DESIGNS AND ESTIMATES SUPPLIED IN TOWN OR COUNTRY.
ESTABLISHED FORTY YEARS. HIGHEST REFERENCES CAN BE GIVEN
THREE PRIZE MEDALS.

Steam Factory: 27 CANAL ROAD, HOXTON, LONDON.



PHILADELPHIA, 1876.

PRIZE MEDALS. INTERNATIONAL EXHIBITIONS.



MELBOURNE, 1880.



SYDNEY, 1879.

KILNER BROTHERS

GLASS BOTTLE MANUFACTURERS.

No. 3^A GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.



PARIS, 1878.

Telegraphic Address :

"BOTTLES LONDON."



LONDON, 1862.

Telephone

No. 7509.



PARIS, 1875.

EXCELLENT
QUALITY.
EXTENSIVE
VARIETY.
PRICES LOW,



Dispensing.

FEEDING, PICKLE,
DRUG, OIL,
SAUCE, VINEGAR

BOTTLES.



FIRST ORDER OF MERIT,
MELBOURNE, 1888.



Feeding.

WINE, SPIRIT,
BEER,
CONFECTIONERY
BOTTLES.

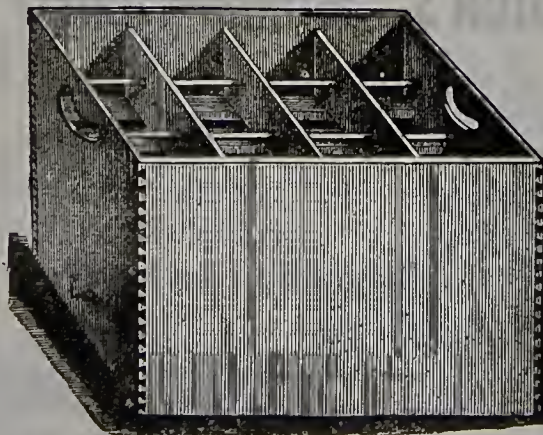


Dispensing.

QUOTATIONS
AND
SAMPLES SENT
ON
APPLICATION,



Mineral Water
BOTTLES.



VAN BOXES.

CASES.



Mineral Water
BOTTLES.

NOT TO KNOW THESE ARGUES ONESELF UNKNOWN

WARRICK
BROTHERS'

18 Old Swan Lane,

LONDON, E.C.

Real Heliotropes



Real Roses



Real Violets

* DELICIOUS + CACHOUS. *

3/- per lb., Splendidly Labelled.

4/- per dozen boxes, Gold Embossed on Calf.

WHITE AND SOUND TEETH.

JEWSBURY & BROWN'S

ORIENTAL TOOTH PASTE.



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

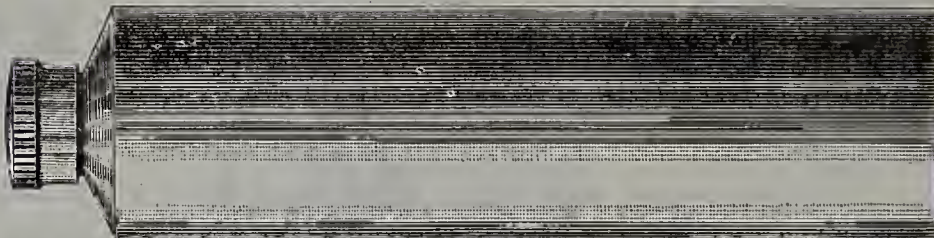
and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

METALLIC COLLAPSIBLE TUBES FOR PAINTS,

Perfumes, Shaving Creams, Soaps, Oils, and all Fluid or Semi-Fluid Substances.

FOR CREAMS SOAPS.



H. G. SANDERS & SON, Manufacturers,

Victoria Works, Victoria Gardens, Notting Hill Gate, LONDON, W.

TELEGRAPHIC ADDRESS: "COLLAPSIBLE LONDON."

[3]

ESTABLISHED 1820.

MADAME LAMPLOUGH'S WORLD-FAMED PREPARATIONS.



ROSENE.

MILK OF ROSES.

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HAIR TONIC.

HERBAL TONIC

PRIMROSE OINTMENT.

HAIR DYE.

GOLDEN HAIR WASH.

ELECTROYAL.

FOR INFLUENZA.

PREPARED BY

THE ROSENE MANUFACTURING CO.

6 MILK STREET, CHEAPSIDE, LONDON, E.C.

PARIS EXHIBITION, 1889.

PRIZE MEDAL AWARDED TO



"SALVO PETROLIA"

(VASELINE).

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Packed in Tins, 1, 4, 10, 14, 28, 56, and 112 lbs.

"OLEUM DEELINÆ"

(REGISTERED).

Universally adopted by the Medical Profession for

ECZEMA,
OPHTHALMIA, SCURVY, RINGWORM,
ITCH, PILES, SKIN DISEASES,

FOR

EXTERNAL & INTERNAL IRRITATION
OF EVERY KIND.

PACKED IN CASES—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles;
or half of each.

TESTIMONIALS MAY BE HAD UPON APPLICATION.

"EDIBLE SALVO PETROLIA"

For Public Speakers, Actors, & Singers.
1s. per Tube.

The above are Manufactured Solely by the Proprietors,

THE DEE OIL COMPANY,
LIMITED.

Works—SALTNEY, CHESTER.

OFFICES:

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Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff,
Bristol, Belfast, Barrow-in-Furness, Nottingham,
Paris, Hamburg, &c.

KENNEDY COMPANY'S

ARNICA TOOTH SOAP

Perfumes the Breath, Whitens the Teeth,
and Strengthens and Preserves the
Gums.

SAMPLES AND PARTICULARS ON APPLICATION.

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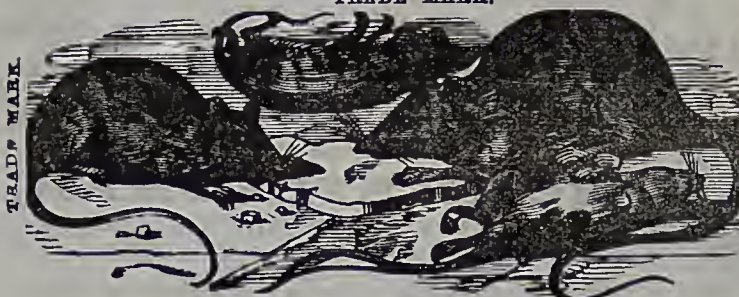
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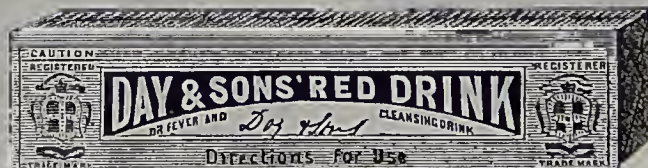
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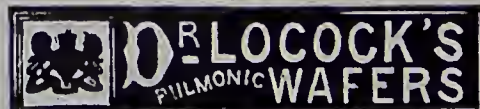
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